Fish Populations of Carnation Creek and Other Barkley Sound Streams 1970–1980

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by

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ABSTRACT

Andersen, B. C. 1983. Fish populations of Carnation Creek and other Barkley Sound streams 1970-1980. Can. Data Rep. Fish. Aquat. Sci. 415: v + 267 p.

A summary of fish population data, collected as part of the Carnation Creek Experimental Watershed Project, is presented. The time period covered is July 1970 to December 1980.

Key words: Watershed study, coho, chum, steelhead, cutthroat, sculpin, logging, Carnation Creek

RÉSUMÉ

Andersen, B. C. 1983. Fish populations of Carnation Creek and other Barkley Sound streams 1970-1980. Can. Data Rep. Fish. Aquat. Sci. 415: v + 267 p.

On présente un résumé des données sur les populations de poisson, recueillies dans le cadre d'un projet d'étude expérimentale du bassin hydrographique du ruisseau Carnation, de juillet 1970 à décembre 1980.

Mots-clés: étude du bassin hydrographique, saumon coho, saumon kéta, truite arc-en-ciel anadrome, truite fardée, chabot, abattage du bois, ruisseau Carnation.

INTRODUCTION

The Carnation Creek experimental watershed is a multi-disciplinary long-term ecosystem study which has as its basic objectives:

1. to establish a strong understanding of processes and interactions, physical and biological, in a (typical) small watershed in a west coast rain forest area.

2. to obtain information on the effects of specified logging and post-logging treatments on such a system.

3. to communicate information to forest and fishery managers and planners in order to improve planning of activities within watersheds.

The project, begun in 1970, was designed to compare physical and biological conditions during three phases: a 5-year pre-logging period, a 6-year logging period, and a 3-year post-logging period. The logging phase of the program was completed in June 1981 (Fig. 2) with about 41% of the watershed being clearcut over the 6-year period.

This report brings together corrects and updates most of the data on studies of fish populations for the period July 1970 to December 1980 but is basically the same as reported in Narver and Andersen 1974; Andersen and Narver 1975; Andersen 1978 and Andersen 1981; all, except Andersen 1981, are out of print.

STUDY SITE

CARNATION CREEK

Carnation Creek is a small coho and chum salmon, steelhead, resident and sea-run cutthroat trout stream entering Barkley Sound on the west side of Vancouver Island (Fig. 1). A few pink salmon spawners enter the lower reaches of the stream during some years. Since 1980 occasional sockeye and chinook salmon spawners have been observed in the lower part of the stream. Two species of cottid, C. aleuticus and C. asper, are residents in the stream. In addition threespine stickleback occur in the intertidal zone and various marine fish in the lower estuary.

The watershed is about 10 km^2 in area containing no lakes and was entirely unlogged at the beginning of the study. It is in a region characterized by heavy rainfall (2150 to 3500 mm/yr) and an overmature coniferous forest of hemlock, cedar, sitka spruce and amabilis fir. Soils are medium to coarse textured and range from gravelly loam to loamy sand with moderately thick humous horizons, slope soils are shallow in most areas of the watershed. Before logging the overmature forest stand was relatively open with substantial understory development composed mainly of tall blue huckleberry, false azalia, salal, sword fern and in the wetter areas, salmonberry, stinkcurrent, and devil's club. Vegetation along the stream

banks was dense and composed mainly of salmonberry, stinkcurrent, and large alder. The stream is accessible to anadromous fish for 3070 m and has a resident cutthroat trout population in the upper reaches. While steelhead and coho spawn well upstream, most of the chum salmon spawn in the intertidal zone. Flows at the main hydrological weir, about 400 m upstream from high tide level, have ranged from a low summer flow of .017 m^3/sec to a winter flood stage of 42 m^3/sec. Water temperature range from winter lows of near 1°C to summer highs of near 17°C.

Detailed descriptions of climate, geology, soils, vegetation, and stream morphology are given in Scrivener 1975, and Oswald 1973, 1974, 1975.

"C" tributary, the internal control stream, drains an area of 155 hectares and is 2.0 km long, draining northwest and joining Carnation Creek approximately 2100 m upstream of the mouth (Fig. 2). It is a high gradient stream in a catchment basin that is unlogged except for 20 hectares of blowdown that was logged in 1972. The substrate is rubble to large boulders with very limited spawning gravel. The study section, located .2 km from the mouth, contains cutthroat trout only. Lowest summer flow was 1.6 L/sec. This stream has had a weir on it since 1972 with flow and temperature being monitored continuously since that time.

1600 tributary drains an area of 22 hectares and is .4 km long. It flows in a westerly direction and joins Carnation Creek approximately 1600 m upstream from mouth (Fig. 2). It has a low gradient in the first 300 m consisting of pools with silt and organic bottoms and short riffles of small gravel. The study section, located 20 m from the mouth, contains coho, rainbow trout, cutthroat trout and C. aleuticus. Summer flow is subgravel at mouth. Stream temperature has been monitored continuously since 1972. This stream was studied more in detail in 1972-73 and 1980-81 (Bustard and Narver 1975; Tschaplinski and Hartman 1982).

Other Streams

For control and comparison purposes, the fish populations in other streams in the southern Barkley Sound area are being monitored in late summer.

North Pachena River flows from Pachena Lake southwesterly for 3.4 km where it joins the main Pachena River 7.4 km above Pachena Bay (Fig. 1). It has a very low gradient with heavy accumulations of logging debris and sparse streamside vegetation. The substrate is silt and small gravel with some rubble. The streamside was logged and burned in 1951-55. The study section, located 2.4 km below Pachena Lake, contains coho, rainbow trout, C. asper, C. aleuticus and crayfish. Low summer flow is < 25 L/sec. Winter freshets do not appear to be severe. This stream was monitored in 1971 only.

Pachena (South Pachena) is about 4.8 km long flowing northwesterly and joining the main Pachena River 4.0 km above Pachena Bay (Fig. 1). It is a low gradient stream with dense stands of red alder on the streambanks. The substrate is variable in size with many sections of good spawning gravel. The 2 km above the Bamfield road, which includes the study section, was logged and partially burned in 1956-60. The study section, located .4 km above the junction

with the main Pachena River, contains coho, rainbow trout, a few cutthroat trout, C. asper, C. aleuticus and crayfish. Low summer flow is < 25 L/sec, stream temperatures of 16 C on the afternoon of August 23, 1972 and 13.2 C on the afternoon of August 29, 1973 were observed. The stream channel shows evidence of substantial winter freshets.

Frederick Creek flows from Frederick Lake northeasterly for 6.4 km where it joins the Sarita River about .8 km from Sarita Bay (Fig. 1). The lower 4 km of the stream is low gradient with heavy growths of red alder. The substrate is small with silt accumulations in the pools. The streamside was logged (and burned?) in the early 1950's. The study section, located .1 km above the mouth, is at the upper tide level and contains coho, rainbow trout, cutthroat trout, C. asper, C. aleuticus, stickleback and lamprey ammocytes. Low summer flow is < 50 L/sec. Mean stream temperature was 13.5 C in August 1971. Temperatures of 14.5 C on the afternoon of August 22, 1972 and 10.5 C on the morning of August 31, 1973 were recorded. This stream was abandoned as a study site in 1980 due to beavers taking over the stream.

Ritherdon Creek is about 9.7 km long flowing westerly into the eastern end of San Mateo Bay (Fig. 1). The lower and upper sections have high gradients and the middle section has a relatively low gradient. Streamside logging started in 1969 and is continuing at the present time, most logged areas have been burned to the stream edge. The logged portion of the stream has a very heavy debris accumulation. The substrate is large except for low gradient areas where it varies from silt to rubble. The study section, located 3.5 km above the mouth, is apparently inaccessible to anadromous fish and contains only cutthroat trout. Low summer flow is < 25 L/sec. In the study section the mean stream temperature in August 1973 was 15.1°C with a maximum of 19°C on July 17. In the study section streamside vegetation was sparse and logging debris is abundant. This section of the watershed was classed nonfish and was consequently logged and burned without concern for other values. In the years since the study began the study has developed a very dense stand of red alder.

Useless Creek is about 2.8 km long, draining southeasterly into Useless Inlet at the northeast end of Barkley Sound (Fig. 1). It is a high gradient stream, in an unlogged forest, with dense streamside vegetation. The substrate is large with few good spawning areas. The study section, located .1 km from the mouth, contains coho, cutthroat trout, C. aleuticus and C. asper. Low summer flow is < 10 L/sec. Mean stream temperature was 9.5 C in August 1973 with a maximum of 10.4 C on July 18. This stream has remained unlogged, although a road was built across the upper watershed in 1980.

METHODS

ADULT SALMONIDS

A permanent fish enumeration fence was constructed in the spring of 1972 near the upper tide limit on Carnation Creek (Lill and Sookachoff 1974). The fence is 18.29 m long with a 30° upstream face of 6.3 mm aluminum bar on edge with 19.0 mm spacing and a 3.66 m wide deck on the downstream side made

of 25.4 × 101.6 mm lumber on edge with 38.1 mm spacing. A 1.22 m wide by 2.44 m long by 2.13 m deep trap made of pickets with 19.0 mm spacing is located on the upstream side of the south end of the fence. The fence is capable of trapping all upstream migrating adult salmonids at all flows experienced to date. All adult salmon, cutthroat and steelhead were dipped from the trap individually; length (tip of snout to fork of tail), and sex recorded; and scales taken from coho, cutthroat and steelhead. All scale sampling was done between the anterior edge of the anal fin and posterior edge of the dorsal fin within three scale rows of the lateral line. Scales were placed in envelopes and later cleaned, placed on gummed cards and impressed in plastic. Most steelhead were tagged with numbered Petersen disks.

In 1971 a temporary upstream-downstream fish trapping fence was built about 100 m upstream from the present site. This facility fished only below 150-200 cfs depending on the debris conditions, so it was used mainly to sample the run. However, population estimates were made for chum and coho, above the fence, prior to November 16, 1971. A tagging and recovery system was used and estimates were derived using the following formula:

$$N = \frac{M(C + 1)}{R + 1}$$

In 1972, 17.3% of the large coho (.1+) and 3.9% of the jack coho (.+) entered after November 16, and these ratios were used to estimate the 1971 run.

Chum salmon escapement estimates were made by visual counts at low water in the intertidal area in all years and for the entire stream in 1970 and 1971. In 1970 length measurements of dead chum were made. These fish were measured from the posterior edge of the eye to the hypural plate. These were later transformed to fork length using a regression of hypural length on fork length for 30 males and 87 females from the 1973 Carnation Creek population:

$$Y = -6.4699 + 1.422\,X \text{ (male chum salmon)}$$

$$Y = 3.3851 + 1.210\,X \text{ (female chum salmon)}$$

Where:

Y = tip of snout - fork of tail

X = posterior edge eye - hypural plate

Fork length data were obtained from chum salmon taken in the fence trap and from occasional beach seine catches in the stream. In 1973-1980 chum salmon were aged from otoliths.

Downstream Migrants

The permanent fish enumerating fence constructed in March 1972 facilitated reliable estimates of downstream migrants. The fence was built so that 5 large fan traps could be easily installed in alternate bays 2, 4, 6, 8, and 10 with the remaining bays screened with "V" shpaed flow dividers extending 2.29 m in front of the untrapped bays. The fan traps are 1.68 m wide at the mouth reducing to .38 m with a triple channelled bottom. A screened live box .91 m long × .46 m wide × .61 m deep was attached to the small end of the fan trap. The entire downstream trapping system was designed to spill as much water as possible before reaching the live boxes. This system is able to screen the entire flow up to about 5.7 m^3/sec if there are not heavy loads of leaves and debris. At flows over 5.7 m^3/sec when the operators could not keep ahead of the fine debris accumulations on the screens, all but one trap was submerged. The one remaining trap was fished as an index although it appears that relatively few fish move on the peak discharges. To obtain an estimate during extreme freshets, when traps were inoperable, catches on the preceding and following day were considered.

In 1971 the outmigration was estimated at a temporary fence by means of three inclined plane traps. The entire stream was trapped until the flow reached about 2.8 m^3/sec, again depending on density of febris.

The downstream traps were serviced each morning just after the peak movement. All trapped fish were anesthetized in a 1:40,000 solution of 2-phenoxyethenol for examination. In all years all the sculpins were identified and measured. Most of the coho smolts and all trout were measured every day. In 1971 scales were taken from nearly every smolt that was measured. Since 1972 scales were taken from the first 50 coho smolts caught in each 7-10 day interval of the migration period. Scales were taken from all trout. Some condition measurements were made on smolts captured in the downstream traps. These smolts were held for 24 hours before weighing because they often feed on chum or coho fry in the live boxes. All chum and coho fry were counted and a sample measured every 7-10 days. Scales were wet-mounted between slides and later examined to determine age of the smolts.

Stream Resident Fishes

Sampling was done by electrofishing and pole seining. In 1970 and 1971 the mark and recapture method of population estimates was used (Shetter 1957). Since May 1972 the removal method has been used for estimating population parameters (Seber and LcCren 1967). For small streams and catches large relative to the total population, the removal method has proven far more satisfactory than mark and recapture for sculpins as well as juvenile salmonids.

Short study sections, from 33 to 170 m in length were established along the stream at 240 (II), 630 (III), 1160 (IV), 1610 (V), 1890 (VI) and

2310 (VIII) m and below the upper weir (IX) (Fig. 2). From 12 to 25% of the 3070 m utilized by anadromous fish were sampled each period. The upper and lower ends of each study section were usually blocked off by nets. Sometimes this was considered not necessary because of very low water and shallow, wide riffles. The wetted area of riffles and pools in each section were measured on nearly every sampling period. Estimates were made for the population parameters of each section. Two methods were considered in making estimates for the entire 3070 m length of stream utilized by anadromous fishes. First, estimates were made for the population parameters of each section and extrapolated to the adjacent, unsampled stream - the sum of these extrapolations being the population estimate. However, occasionally the population estimate in a particular section was unreliable, i.e. $R < 20\%$ in the case of mark and recapture or $\tilde{p} < 50\%$ in the case of the removal method. Because of these occasional aberrant estimates it was considered better to pool the population parameters for all sections, making one population estimate, and extrapolating that to the unsampled portion of the stream for a total population estimate per Elson (1962).

In 1971 when mark and recovery methods of population estimating were used, the estimates for sculpins in the lower stream were extremely high. Recovery of marked fish was extremely low. Our observations suggest that the marked fish, after being shocked and anesthetized, and having part of a dorsal fin removed, were not as available to recapture as were unmarked fish. Because of this little confidence can be placed in the 1971 sculpin estimates.

Each catch was anethetized, counted, measured and sampled for scales. A sample of each species was weighed in at least 2 study sections in the mainstem of Carnation Creek and at all other study sites.

Another measure of condition, total lipids analysis, was done from 1973-1977. Each fish, in samples of 20-30, was anesthetized, measured, weighed and frozen individually in freezer bags. Analysis was done according to the Folch, Jorki, Lees and Sloane Stanley (1957) method.

RESULTS

ADULT STUDIES

Coho

The following table shows a marked increase in the return of jack coho in 1978-80, of large males in 1979 and 1980, and of females in 1979. This was probably a reflection of a large increase in coho smolt output in 1978-80.

	Jack (.+)		Large male (.1+)		Female		
Year	Return	Mean fork length (cm)	Return	Mean fork length (cm)	Return	Mean fork length (cm)	Total large
1971[a]	62	35.0	108	55.7	81	61.0	189
1972	76	33.0	87	65.2	75	68.6	162
1973	43	33.8	85	62.8	71	66.8	164[b]
1974	75	35.6	88	58.1	70	66.9	159[c]
1975	54	33.4	89	65.4	69	65.9	158
1976	35	30.1	68	56.1	55	63.5	123
1977	53	34.7	76	57.3	51	65.2	127
1978	233	33.5	46	60.7	56	65.3	102
1979	114	33.2	136	58.2	176	64.0	312
1980	101	34.8	110	57.0	65	66.8	175[d]
Mean	84.6		89.3		76.9		167.1

[a] The 1971 run was estimated using mark and recovery.

[b] Eight not sexed but included in total.

[c] Includes 1 large unsampled coho.

[d] Plus 5-10% for uncounted large coho.

The age compositions of adult coho are presented in Tables 1 to 3.

The length distributions and mean lengths for adult coho by age and sex are given in Tables 7 to 9.

Time of entry into the stream is strongly dependent on stream discharge levels and consequently is variable between years (Tables 4 to 6). In all years at least 85% of the run had entered by mid-November.

Chum

The estimates of chum salmon spawning escapement (above and below fence) in Carnation Creek were:

Year	Escapement	Sex ratio ♂:♀
1970	1200	1.4:1
1971	1000	.96:1
1972	1700	1.6:1
1973	4168	1.4:1
1974	3060	1.1:1
1975[a]	1200	
1976	1500	1.2:1
1977	1700	
1978	3300	1.1:1
1979	450	
1980	3000	

[a]The 1975 estimate was very rough due to high stream discharge levels.

Weekly counts of chum salmon, by sex, passing Carnation Creek fence are presented in Tables 10 to 12.

Length distributions, by sex, are given in Table 13 and 14. The average of yearly mean fork lengths for 1970-1980 chum were 72.9 cm for males and 70.5 cm for females.

The dominant age group of chum adults is three winters in the ocean as determined by otoliths (Table 15).

Pink

In early September 1980 approximately 40 pink salmon spawned above and below the counting fence. This was unusual. In previous years a maximum of 2 pair had been observed and only below the fence. In most years no pinks were observed.

Steelhead and Cutthroat

Adult steelhead and cutthroat sampling at the counting fence is summarized in Tables 16 and 17. The number of fish sampled is not an indication of the total return of either steelhead or cutthroat because the fence was not operated during the winter of 1978-79 and 1979-80. Also when the fence is fishing for juveniles from mid-March to August high stream discharge can flood out the fence and allow adult fish to pass upstream or downstream unobserved.

JUVENILE STUDIES

Downstream Migrants

Outmigrations of juvenile salmonids in relation to date, water temperature and discharge are presented in Fig. 3 to 12. Total counts are summarized in Table 18.

Coho

			1+ ≥60 mm		II+				
Year	Fry run	I+ <60 mm run	Run	Mean length (mm)	Run	Mean length (mm)	Total fish ≥60 mm	% II+ fish ≥60 mm	50% point of smolt run
1971[a]	122774	62	1000	76.6	1415	98.3	2415	59	May 14
1972	25664	40	1305	83.3	574	108.0	1879	30	May 4
1973	19183	141	974	77.4	776	101.9	1750	44	May 8
1974	21600	184	1030	74.2	1444	99.2	2474	58	May 9
1975	31364	128	1119	75.2	874	94.6	1993	44	May 9
1976	24714	206	1788	72.0	1068	92.8	2856	37	May 10
1977	7877	103	1522	78.1	935	97.5	2457	38	May 4
1978	13972	27	3841	83.6	778	100.0	4619	17	May 2
1979	5285	19	2843	80.6	668	96.3	3511	19	Apr 30
1980	27654	21	3555	85.4	991	104.6	4546	22	Apr 30

[a]Temporary fence, run numbers are very rough.

The preceding table shows a very large increase in numbers of age I+ smolts in 1978, 1979 and 1980.

Coho smolts migrated primarily in late April and early May with major peaks corresponding to rising stream discharge. The 50% point of the coho smolt run shows a trend of occurring at an earlier date in 1978-80 (Table 19). The timing of the two age groups are different with the age II fish tending to predominate in the middle of the run (Fig. 13).

The weekly mean lengths of smolts are in Fig. 14-17 and appendix. There is a trend to larger age I+ coho smolts in the last three years (1978-80).

The 50% point of the coho fry shows a trend toward being much earlier in 1977-1980 than in previous years (Table 19). Mean lengths of coho fry in the downstream run are summarized in Table 20. A paper examining the coho fry runs in detail has been published (Hartman et al. 1982).

Chum Salmon

The mean number of chum fry in the yearly outmigrations from above the fence for the years 1972 to 1980 is 47,360. Mean lengths of chum fry

in the downstream runs are summarized in Table 21. Virtually all chum fry movement is at night. Timing is variable, the time by which 75% of the run had passed the traps was from 2300 to 0230 hr in four nights of continual trapping (Fig. 18).

Steelhead and Cutthroat

A summary of juvenile steelhead and cutthroat trout outmigration data 1971-1980:

	Steelhead				Cutthroat		
	<100 mm	≥100 mm			<100 mm	≥100 mm	
Year	Run	Run	Mean length	50% point of run	Run	Run	Mean length
1971[a]	308	167	143.3	May 20	10	19	133.7
1972	39	59	153.2	Jun 9	-	4	155.8
1973	113	93	134.6	May 23	8	24	135.0
1974	179	78	144.5	May 22	7	48	144.9
1975	128	68	143.8	May 27	34	58	137.5
1976	301	113	133.9	May 24	16	78	129.3
1977	176	106	131.1	May 9	24	93	128.6
1978	7	103	139.0	May 10	7	60	122.6
1979	1	20	140.1	May 6	3	25	125.2
1980	10	51	161.9	May 9	6	60	141.7

[a]Temporary fence, run numbers very rough.

The 50% points of steelhead smolt outmigration shows a trend, starting in 1977, of being much earlier than in previous years. The numbers of both steelhead and cutthroat under 100 mm show a marked decline in the last 3 years, while numbers of fish 100 mm and over have also had a marked but somewhat lesser, decline. Mean length of 1980 100 mm and over steelhead shows a very large increase over previous years.

The age compositions and mean lengths of juvenile steelhead and cutthroat in the downstream migrations are presented in Tables 22 and 23.

Resident Fish

The basic data on density, biomass and growth are in the appendixes. The late summer population estimates for the lowest 3070 m of Carnation Creek are given in Table 24.

A summary of late summer population estimates for lower Carnation Creek by species, year and age:

	Coho		Rainbow				Cutthroat				
Year	0	I	0	I	II	III	0	I	II	III	C. aleuticus
1970	14129	790	1685	694	392						
1971	11842	1286	3451	501	119	128					
1972	9252	702	1597	386	58						2292
1973	9071	1229	5117	229	101	9					4539
1974	12584	1114	3545	456	~76	10					4058
1975	11482	1333	2892	376	~85						2488
1976	12327	1232	2939	355	~80						1642
1977	10602	1236	344	232	258						1617
1978	10928	1089	136	94	68	9	944	136	~85	34	3411
1979	13230	1546	-	39	-		388	86	8		1845
1980	20953	2142	269	16	24		212	163	57	~24	1832

The 1980 estimates of both age 0 and Age I are much higher. A trend of a marked decrease in numbers of rainbow, started in 1977, continues. Cutthroat, which were so few in number prior to 1978 that population estimates were not made, have increased in numbers to a point where estimates are now possible.

A summary of the late summer fish densities by study section in Carnation Creek is given in Table 25. The following summary of late summer Carnation resident coho density (fish/m^2) by study section and year shows some interesting trends in relation to progress of clearcut logging in the watershed, but should be used with caution since the densities do not take into account differences in stream discharges at time of sampling or yearly variations in low summer flow.

		Year										
Age	Section	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
0	II	.89	1.14	.60	.61	.66	.61	.72	.24	.45	.72	.70
	III	1.18	.82	.59	.52	.75	.38	.58	.30	.35	.60	.98
	IV		.44	1.01	1.05	1.27	.98	.92	.44	.74	1.14	1.97
	V				.44	1.00	.86	.88	1.18	.66	.29	1.24
	VI	1.73	.96	1.01	.93	1.30	1.00	.69	.78	.60	.51	1.15
	VIII	.98	.99	.86	-	.68	.68	.47	.30	.27	.94	1.58
	Combined[a]	1.15	.88	.80	.73	.92	.75	.69	.53	.50	.74	1.26
I	II	.06	.16	.05	.12	.10	.13	.09	.10	.02	.10	.12
	III	.06	.11	.09	.10	.06	.05	.08	.06	.04	.12	.19
	IV		.05	.06	.11	.13	.09	.08	.09	.05	.11	.19
	V				.05	.08	.05	.07	.06	.10	.10	.10
	VI	.08	.05	.03	.17	.08	.13	.07	.04	.10	.07	.11
	VIII	.02	.05	.09	.04	.02	.03	.04	.03	.02	.04	.13
	Combined[a]	.06	.10	.06	.10	.08	.09	.07	.06	.05	.09	.13

[a]Not a mean but derived from areas and catches in all sections combined for population estimate.

Preliminary analysis relating densities in sections V, VI and VIII (Fig. 2) to unlogged or leave strip sections (II, III, IV) shows an increase in densities of age 0 coho in the summer immediately following intense logging treatment and then a decrease in densities in subsequent years.

Tables 26, 27, and 28 summarize fish density, biomass, and mean lengths for all years and all streams studied.

In the Ritherdon Creek study area both fish densities and biomass have shown a substantial decrease since 1976. Age 0 coho in South Pachena increased in density in 1979 and 1980.

The length weight and condition factor (K) data, cottids and juvenile salmonids, are summarized in Appendix XV.

Lipid content of juvenile salmonids in Carnation Creek is summarized in Table 29.

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Table 1. Age composition of adult coho salmon in Carnation Creek 1971-1974.

		Total age						Freshwater			Ocean		
		1.+	2.+	Total	1.1+	2.1+	Total	1.	2.	Total	.+	.1+	Total
1971													
♂	n	7	6	13	5	10	15	12	16	28	16	18	34
	%	54	46		33	67		43	57		47	53	
♀	n	0	0	0	3	5	8	3	5	8	0	10	10
	%				37	63		37	63		0	100	
Total	n	7	6	13	8	15	23	15	21	36	16	28	44
	%	54	46		35	65		42	58		36	64	
1972													
♂	n	33	18	51	41	18	59	74	36	110	76	87	163
	%	65	35		70	30		67	33		47	53	
♀	n	0	0	0	30	27	57	30	27	57	0	75	75
	%				53	47		53	47		0	100	
Total	n	33	18	51	71	45	116	104	63	167	76	162	238
	%	65	35		61	39		62	38		32	68	
1973													
♂	n	18	19	37	45	16	61	63	35	98	40	83	123
	%	49	51		74	26		64	36		32	68	
♀	n	0	0	0	40	8	48	40	8	48	0	70	70
	%				83	17		83	17		0	100	
Total	n	18	19	37	85	24	109	103	43	146	40	153	193
	%	49	51		78	22		71	29		21	79	
1974													
♂	n	18	40	58	46	22	68	64	62	126	71	82	153
	%	31	69		68	32		51	49		46	54	
♀	n	0	0	0	20	30	50	20	30	50	0	66	66
	%				40	60		40	60		0	100	
Total	n	18	40	58	66	52	118	84	92	176	71	148	219
	%	31	69		56	44		48	52		32	68	

Table 2 Age composition of adult coho salmon in Carnation Creek 1975, 1976 and 1977.

	Total age							Freshwater				Ocean		
	1.+	2.+	Total	1.1+	2.1+	3.1+	Total	1.	2.	3.	Total	.+	.1+	Total
1975														
♂ n	19	17	36	29	27	0	56	47	42	0	89	51	88	139
%	52.8	47.2		51.8	48.2	0		52.8	47.2	0		36.7	63.3	
♀ n	0	0	0	21	33	0	54	21	33	0	54	0	66	66
%				38.9	61.1	0		38.9	61.1	0		0	100.0	
Total n	19	17	36	50	60	0	110	68	75	0	143	51	154	205
%	52.8	47.2		45.5	54.5	0		47.6	52.4	0	24.9	75.1		
1976														
♂ n	10	22	32	33	20	1	54	44	40	1	85	32	66	98
%	31.2	68.8		61.1	37.0	1.9		51.8	47.0	1.2		32.7	67.3	
♀ n	0	0	0	19	29	0	48	19	29	0	48	0	53	53
%				39.6	60.4			39.6	60.4	0		0	100.0	
Total n	10	22	32	52	49	1	102	63	69	1	133	32	119	151
%	31.2	68.8		48.0	51.0	1.0		47.3	51.9	0.8		21.2	78.8	
1977														
♂ n	12	38	50	40	31	0	71	52	65	0	117	54	73	127
%	24.0	76.0		56.3	43.7			44.4	55.6			42.5	57.5	
♀ n	0	0	0	23	23	1	47	23	23	1	47	0	49	49
%				48.9	48.9	2.2		48.9	48.9	2.2		0	100.0	
Total n	12	38	50	63	54	1	118	75	88	1	164	54	122	176
%	24.0	76.0		53.4	45.8	0.8		45.7	53.7	0.6		30.7	69.3	

Table 3. Age composition of adult coho salmon run in Carnation Creek 1978, 1979, 1980.

		Total age							Freshwater				Ocean		
		1.+	2.+	Total	1.1+	2.1+	3.1+	Total	1.	2.	3.	Total	.+	.1+	Total
1978															
♂	n	173	44	217	31	16	0	47	204	60	0	264	233	47	280
	%	79.7	20.3		66.0	34.0	0		77.3	22.7			83.2	16.8	
♀	n	0	0	0	32	20	0	52	32	20	0	52	0	56	56
	%	0	0		61.5	38.5	0		61.5	38.5	0		0	100.0	
Total	n	173	44	217	63	36	0	99	236	80	0	316	233	103	336
	%	79.7	20.3		63.6	36.4	0		74.7	25.3	0		69.3	30.7	
1979															
♂	n	81	28	109	111	10	0	121	192	38	0	230	114	136	250
	%	74.3	25.7		91.7	8.3	0		83.5	16.5	0		45.6	54.4	
♀	n	0	0	0	141	27	0	168	141	27	0	168	0	176	176
	%	0	0		83.9	16.1	0		83.9	16.1	0		0	100.0	
Total	n	81	28	109	252	37	0	289	333	65	0	398	114	312	426
	%	74.3	25.7		87.2	12.8			83.7	16.3			26.8	73.2	
1980															
♂	n	68	30	98	82	17	0	99	150	47	0	197	101	110	211
	%	69.4	30.6		82.8	17.2	0		76.1	23.9			47.9	52.1	
♀	n	0	0	0	55	7	0	62	55	7	0	62	0	65	65
	%	0	0		88.7	11.3	0		88.7	11.3				100	
Total	n	68	30	98	137	24	0	161	205	54	0	259	101	175	276
	%	69.4	30.6		85.1	14.9	0		79.2	20.8			36.6	63.4	

NOTE: Number of adult coho aged can be less than total run due to unreadable scales or no scale being taken.

Table 4. Weekly fence count of coho salmon into Carnation Creek by ocean age and sex 1972-1974.

1972						1973						1974					
				Total						Total						Total	
Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %
Sep						Sep						Sep					
17-23	0	4	31	35	14.7												
24-30	0	0	0	0		23-29	0	0	1	1	0.5	12			1	1	.4
Oct						Oct						Oct					
1-7	0	0	0	0		S30-6	0	0	1	1	1.0	2-5	3	10	33	46	20.1
8-14	0	0	0	0		7-13	4	15	16	35	17.9	6-12	16	20	19	55	43.6
15-21	0	0	0	0		14-20	32	36	18	87[a]	59.9	13-19	1	1	4	6	46.2
22-28	0	0	0	0		21-27	10	9	2	21	70.0	20-26	0	0	0	0	
29-N4	35	38	34	107	59.7	28-N3	6	12	2	20	79.7	27-N2	0	0	0	0	
Nov						Nov						Nov					
5-11	26	27	8	61	85.3	4-10	0	1	0	1	80.2	3-9	37	42	6	85	82.5
12-18	2	1	0	3	86.6	11-17	8	6	1	16[a]	87.9	10-16	3	2	6	11	87.2
19-25	1	0	0	1	87.0	18-24	2	1	0	3	89.4	17-23	5	7	1	13	92.8
26-D2	5	8	3	16	93.7	25-D1	0	0	0	3[a]	90.8	24-30	0	1	1	3[a]	94.1
Dec						Dec						Dec					
3-9	0	1	0	1	94.1	2-8	7	5	2	17[a]	99.0	1-7	3	4	4	11	98.8
10-16	0	0	0	0		9-15	2	0	0	2	100	8-14	1	1	0	2	99.7
17-23	6	8	0	14	100							15-21	1	0	0	1	100
Total	75	87	76	238			71	85	43	207[a]			70	88	75	234[a]	

[a]Includes large coho that escaped upstream.

Table 5. Weekly fence count of coho salmon into Carnation Creek by ocean age and sex in 1975, 1976, and 1977.

1975						1976						1977					
				Total						Total						Total	
Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %
Sept. 2-3	0	1	2	3	1.4	Sept. 14	0	0	1	1	.6	Sept. 21 & 22	2	8	2	12	6.7
						Sept. 30	0	0	1	1	1.3						
Oct. 5-11	17	7	29	53	26.4	Oct. 3-9	0	0	0	0		Oct. 2-8	0	0	0	0	
12-18	20	25	16	61	55.2	10-16	7	11	19	37	24.7	9-15	1	1	5	7	10.6
19-25	2	16	3	21	65.1	17-23	1	1	1	3	26.6	16-22	0	0	0	0	
26-N1	6	26	0	32	80.2	24-30	21	26	8	55	61.4	23-29	33	45	26	104	68.3
Nov. 2-8	16	11	2	29	93.9	Oct. 31-N6	9	8	3	20	74.1	Oct. 30-N5	6	7	8	21	80.0
9-15	1	1	0	2	94.8	N7-13	0	1	0	1	74.7	N6-12	2	6	2	10	85.6
16-22	2	0	1	3	96.2	N14-20	11	12	1	24	89.9	N13-19	2	4	6	12	92.2
23-29	3	1	1	5	98.6	N21-27	4	5	1	10	96.2	N20-26	0	1	1	2	93.3
30-D6	0	0	0	0		N28-D4	0	0	0	0		N27-D3	1	1	1	3	95.0
Dec. 7-13	1	0	0	1	99.1	Dec. 5-11	1	3	0	4	98.7	Dec. 4-10	0	0	0	0	
						12-18	1	1	0	2	100.0	11-17	4	2	2	8	99.4
Jan. 6/76	1	1	0	2	100.0							Feb. 12/78	0	1	0	1	100.0
Total n	69	89	54	212			55	68	35	158			51	76	53	180	
Sex ratio	large	♂	♀				large	♂	♀				large	♂	♀		
		1.29	1					1.24	1					1.49	1		

Table 6. Weekly fence count of coho salmon into Carnation Creek by ocean age and sex in 1978, 1979, 1980.

1978						1979						1980					
				Total						Total						Total	
Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %	Week	♀ n	♂(.1+) n	Jack n	n	Accum. %
Aug 22	0	0	2	2	.6												
Sep						Sep						Sep					
3-4	0	0	4	4	1.8	4-8	14	21	25	60	14.1	2	0	3	4	7	2.5
10-16	3	0	48	51	17.0	9-15	7	8	15	30	21.1	7-13	0	0	6	6	4.7
17-23	2	0	17	19	22.7	16-22	0	0	0	0	21.1	14-20	0	4	13	17	10.9
24-30	1	2	26	29	31.3	23-29	9	3	20	32	28.6	21-27	0	2	18	20	18.1
Oct						Oct						Oct					
1-7	0	1	12	13	35.2	S30-6	4	2	12	18	32.9	S28-04	6	30	37	73	44.6
8-14	1	1	27	29	43.9	7-13	0	0	0	0	32.9	5-11	2	1	1	4	46.0
15-21	0	0	1	1	44.2	14-20	1	1	4	6	34.3	12-18	0	0	1	1	46.4
22-28	11	6	22	39	55.8	21-27	116	85	36	237	89.9	19-25	1	5	1	7	48.9
29-N4	5	0	7	12	59.4	28-N3	6	6	0	12	92.7	26-N1	13	20	4	37	62.3
Nov						Nov						Nov					
5-11	24	31	61	116	94.0	4-10	0	0	0	0	92.7	2-8	38	43	15	96	97.1
12-18	1	1	2	4	95.2	11-17	2	2	2	6	94.1	9-15	1	0	0	1	97.5
19-25	0	0	0	0	95.2	18-24	7	5	0	12	96.9	16-22	4	2	1	7	100.0
26-D2	2	3	1	6	97.0	25-D1	6	1	0	7	98.6	23-29	0	0	0	0	
Dec						Dec						Dec					
3-9	2	1	1	4	98.2	2-8	3	1	0	4	99.5	N30-6	0	0	0	0	
10-16	4	0	2	6	100.0	9-15	1	1	0	2	100.0	7-13	0	0	0	0	
Total n	56	46	233	335			176	136	114	426			65	110	101	276	
Sex ratio large ♂ : ♀ .82 : 1						large ♂ : ♀ .77 : 1						large ♂ : ♀ 1.69 : 1					

NOTE: During a period of high tide and high stream flow on November 1, 1980, several large coho were observed to escape over the fence, considered to be 5-10% of run.

Table 7. Length frequency and mean length of jack coho salmon (.+) in Carnation Creek 1971-1980.

Fork length (cm)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
21		1								
22		1								
23									1	
24					1			2		
25					1	2			1	1
26			2		3	2	1	1	1	2
27		1				1	1	2	2	
28		3	3	1		2	3	5	3	2
29		4	3	4	1	4	2	13	6	5
30		4		3	2	5		10	4	5
31		6	3	2	8	2	2	12	8	2
32		8	3	2	4	3	3	23	11	4
33		6	2	8	1	3	5	20	6	12
34	3	6	1	3	2	1	4	36	20	12
35	2	8	4	8	7	4	6	20	6	9
36	1	12	6	5	6	1	1	16	12	9
37	1	3	1	8	5		5	29	10	6
38	2	4	5	5	6	2	3	14	5	3
39	1	3	3	6	2		5	10	6	4
40		4	2	4	1		5	10	4	6
41		1	1	1	2		3	3	3	4
42		1	1	2				2	1	6
43			2	4			2	4	1	2
44				1			1			4
45				2	1		1	1		1
46				3					1	
47		1			1					
48										1
										1
n	10	77	42	72	54	32	53	233	112	101
Mean length	35.0	33.0	33.8	35.6	33.4	30.1	34.7	33.5	33.2	34.8

Table 8. Length frequency and mean length of large male coho salmon (.1+) in Carnation Creek 1971-1980.

Fork length (cm)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
37						1				1
38							1		1	1
39					1	1				1
40					1	1	1	1	1	3
41		1				1			2	
42			1	1	1					3
43			1	1		1			1	1
44	1	1		1	1		3	1	2	
45		1				1	1		2	3
46			1	1		3	2		2	1
47		1	2	1		1	2	1	1	1
48	1	1	1	5	1		3		2	5
49	1	2	1	3		4	3	1	3	8
50		1	1	2	2	1		2	1	5
51		2	2	1	2	3	4	1	6	4
52	4			4	2	5	4		4	1
53	1	4	1	7	1	5	2	1	7	8
54		4	4	3	1	2	4	1	3	2
55		3	5	4	2	2	2	3	10	4
56	1	1	2	4	3	3		2	5	3
57		1	4	3		4	3	2	8	2
58	1	2	6	4	4	4	5	1	14	3
59		1	2	5	4	3	6	3	5	2
60	1	1	1	2	2	3	3	4	9	5
61		4	2	3	3	1	2	3	6	7
62			2	6	1	2	3	1	4	3
63		3	3	4	3	2	4	1	1	3
64		3	1	3	4	2	4	2	5	2
65		1	6	1	3	1	3	3	8	3
66		4	4	3		1	1	1	2	4
67		3	4	3	4	1	1	3	3	5
68	1	3	4		1	2	4		4	2
69		1	2	2	6	3		2	1	
70		3	4		5			2	5	4
71		2	2	2	1		1		2	1
72		4	4		4	1	1	1	2	2
73		5		1	4		1		3	2
74		3	2	1	2	1	1		1	3
75			4	2	7	1				
76		3	2		2					
77		1	2		2		1			2
78		1	1	1	3			4		
79		2			2					
80	1	2			3					
81		4								
82		1	1							
83					1					
84		2								
n	13	82	85	84	89	67	76	47	136	110
Mean length	55.7	65.2	62.8	58.1	65.4	56.1	57.3	60.9	58.2	57.0

Table 9. Length frequency and mean length of female coho salmon in Carnation Creek 1971-1980.

Fork length (cm)	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
42					1					
43										
44									1	
45									1	
46										
47			1							
48		1			1				1	
49				1	1			2	1	
50					2	3			2	
51			1		1	1		2	3	1
52					1	2			3	
53	1						1		4	
54		2	2		1	1	1		3	1
55	1	1	1	1	2	1		1	4	1
56			2	1	1		2	1	1	
57		2			2	2	2		1	1
58		1	2	3	1	3	1	1	5	1
59		1	1	1	1	1	2	1	6	2
60				2		4	1	1	6	1
61	1	3	1	2	1	1	2	1	7	2
62	1		1	3	2		1	3	10	5
63	4	1	7	1	5	2	3	2	7	3
64		3	4	3	2	5	7	5	13	2
65		3	2	4	4	1	3	7	12	
66	1	2	5	3	5	5	2	2	10	3
67		3	5	8	1	4	1	3	19	5
68		2	6	3	3	4	7	4	21	6
69		5	1	4	3	5	3	7	7	6
70		4	9	6	6	4	4	5	8	7
71		9	3	4	1	2	4	3	9	4
72		6	1	6	6	2	2		2	6
73		5	6	5	2		1	3	5	6
74		7	5	1	3	1		1	2	
75		1	4	2	4			1	1	1
76		4		1	1		1			
77		2			1				1	
78		1			3					
79					1					
80			1							
n	9	69	71	65	69	54	51	56	176	64
Mean length	61.0	68.6	66.8	66.9	65.9	63.5	65.2	65.3	64.0	66.8

Table 10. Weekly count, by sex, of chum salmon passing Carnation Creek fence in 1972-1973.

1972					1973					1974				
			Total					Total					Total	
Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %
					Oct 7-13	4	0	4	1	Oct 11	2	7	9	15
					Oct 14-20	89	135	224	41	Oct 13-19	0	1	1	17
					Oct 21-27	103	145	248	86	Oct 20-26	0	1	1	18
Oct 29-N4	19	24	43	46	Oct 28-N3	17	18	35	93	Oct 27-N2	0	3	3	23
Nov 5-11	9	40	49	99	Nov 4-10	11	19	28	98	Nov 3-9	18	27	45	98
Nov 12-18	0	1	1	100	Nov 11-17	5	5	12	100	Nov 10-16	0	1	1	100
Total	28	65	93			230	323	553			20	40	60	

Table 11. Weekly count, by sex, of chum salmon passing Carnation Creek fence in 1975, 1976 and 1977.

1975					1976					1977				
			Total					Total					Total	
Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %
Oct. 5-11	0	1	1	1	Oct. 3-9	0	1	1	0.5	Oct. 2-8	0	0	0	0
Oct. 12-18	7	31	38	39	Oct. 10-16	0	1	1	1	Oct. 9-15	1	2	3	2
Oct. 19-25	11	26	37	75	Oct. 17-23	1	5	6	3	Oct. 16-22	6	4	10	7
Oct. 26-Nov. 1	5	13	21[a]	96	Oct. 24-30	74	123	197	95	Oct. 23-29	65	97	162	94
Nov. 2-8	2	2	4	100	Oct. 31-Nov. 6	7	3	10	100	Oct. 30-Nov. 5	6	3	9	99
Nov. 9-15	0	0	0		Nov. 7-13	0	0	0		Nov. 6-12	1	1	2	100
Total	25	73	101			82	133	215			79	107	186	

[a]On October 30, 1975, 3 chum escaped upstream when panel lifted to clean fence, included in total.

NOTE: Some of the fish were dipnetted from the downstream side of fence and released upstream.

Table 12. Weekly count of adult chum salmon, by sex, passing Carnation Creek fence in 1978, 1979, 1980.

1978					1979					1980				
			Total					Total					Total	
Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %	Week	♀ n	♂ n	n	Accum. %
Sep														
24-30	3	2	5	7										
Oct					Oct					Oct				
1-7	0	0	0	7	S30-6	0	0	0		S28-04	0	0	0	
8-14	0	2	2	10	7-13	0	0	0		5-11	0	0	0	
15-21	0	0	0	10	14-20	0	0	0		12-18	3	15	18	4.2
22-28	15	20	35	63	21-27	2	6	8	89	19-25	99	215	314	77.4
29-N4	8	14	22	96	28-N3	0	1	1	11	26-N1	24	67	91	98.6
Nov					Nov					Nov				
5-11	0	3	3	100	4-10	0	0	0		2-8	1	4	5	99.8
12-18	0	0	0		11-17	0	0	0		9-15	0	0	0	
										16-22	0	1	1	100
Total	26	41	67			2	7	9			127	302	429	

NOTE: In 1978 and 1979 some of the fish were dipnetted from the downstream side of fence and released upstream.

Table 13. Length frequency (fork length) of adult male chum salmon in Carnation Creek 1970-1980.

Fork length (cm)	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
53	1		1								
54											
55											
56											1
57			1				1				
58			2								2
59		1	1		1		1				2
60			3				1	2			4
61			3	2			1				6
62	1	1	1			1	3	1			5
63	4	1	4	2	1	1	5	3			5
64			3	2		3	3	2		2	10
65	3		5	1	6		7	1			16
66	8	3	4	4	4	3	7	3		1	23
67	11	2	11	10	11	3	8	3	2	2	19
68		1	11	11	8	2	8	3	4	2	13
69	13	6	5	12	7	4	7	7	1	1	33
70	9	8	15	12	15	5	10	16	6	1	29
71		4	12	24	8	6	5	10	4		37
72	10	4	10	30	38	12	16	14	13	1	11
73	12	6	12	32	25	13	12	16	11		18
74		1	10	27	17	10	8	14	10		19
75	9	4	16	37	33	14	28	13	17	3	14
76	5	1	7	36	27	16	14	15	6	2	18
77	2	2	6	18	24	11	13	16	17	2	3
78			7	27	15	13	11	11	9	1	4
79	1	1	3	10	22	7	18	13	5	1	4
80	1		4	5	22	3	20	15	12	2	2
81			2	2	8	1	7	5	5		3
82	1		1	3	20	1	4	9	11	3	1
83					3	2	5	5	3		
84				4	1		5	3	3		
85					2		2	1	2		
86				1	1		2	2			
90							1				
n	91	46	160	312	319	131	233	203	141	24	302
Mean length	70.3	70.7	71.0	73.7	74.9	74.1	74.2	74.8	76.1	73.7	68.8

Table 14. Length frequency (fork length) of adult female chum salmon in Carnation Creek 1970-1980.

Fork length (cm)	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
57	1										
58	2										
59											
60			1	1			1	2			
61	2	2	2	2	1		2				4
62		1	4	1					1		
63	4	1	3	1	1	2	3	1		1	5
64	4	3	4	3		1	5	2			9
65	6	5	3	2	6		8		1		12
66	4	5	3	9	7	2	4	3	1	1	13
67		4	9	6	9	2	5	2	3	1	14
68	3	2	8	19	13	5	7	9	7		13
69	5	4	10	23	19	11	8	10	9	2	8
70	7	8	12	34	7	10	9	20	8	3	10
71	11	4	14	25	26	18	12	24	25	5	9
72	7	2	9	33	36	15	15	21	21		5
73		1	5	21	23	12	16	20	7	2	2
74	3	1	4	17	21	9	13	21	15	2	4
75	1	1	3	10	28	8	29	16	12	1	3
76	1	1	2	5	18	5	11	8	5	2	2
77				3	6	5	16	8	6	2	
78		1	1	2	2		7	5	3	2	
79					5	1	1	2	1		
80				1		1	3				1
81								1	1		
82						1					
n	61	46	97	218	228	108	178	177	126	24	127
Mean length	68.1	68.2	69.1	70.7	72.0	71.9	72.0	72.0	72.2	72.0	67.4

Table 15. Fork length and age composition (otoliths) of chum salmon adults in Carnation Creek 1973-1980.

		0.2					0.3					0.4				
Sex	Year	n	% 0.2	Mean Ln. (cm)	s	Range (cm)	n	% 0.3	Mean Ln. (cm)	s	Range (cm)	n	% 0.4	Mean Ln. (cm)	s	Range (cm)
♂	1973	8	8.3	66.4	2.62	63-70	79	82.3	73.2	3.70	65-80	9	9.4	78.8	3.23	75-84
	1974	12	12.6	66.9	3.58	59-72	76	80.0	73.6	3.31	66-81	7	7.4	80.7	3.04	77-85
	1975	5	8.5	66.6	2.88	63-69	50	84.7	75.3	3.07	68-83	4	6.8	80.7	1.71	79-83
	1976	14	14.0	65.5	2.38	62-70	76	76.0	76.3	3.39	68-83	10	10.0	82.7	2.06	80-86
	1977	8	8.2	67.4	5.01	60-73	80	82.5	77.1	3.85	69-85	9	9.3	83.4	2.24	79-86
	1978	5	5	71.8	2.59	68-75	87	88	76.4	3.95	67-85	7	7	81.9	1.77	79-82
	1979	3	18	65.7	1.53	64-67	14	82	77.4	2.90	72-82	0	0	-	-	-
	1980	13	14	65.1	4.99	58-74	80	83	70.3	4.07	62-80	3	3	79.0	3.00	76-84
♀	1973	6	6.1	64.2	3.92	58-68	84	84.8	70.8	2.51	64-78	9	9.1	72.6	2.45	69-77
	1974	6	6.3	66.3	3.50	61-70	82	86.3	71.6	2.79	65-77	7	7.4	75.6	2.99	72-79
	1975	8	10.8	67.2	2.71	63-71	61	82.4	72.5	2.89	63-82	5	6.8	75.8	3.03	72-80
	1976	7	7.3	64.4	.98	63-66	84	87.5	73.4	3.36	64-78	5	5.2	76.8	2.86	73-80
	1977	11	11.2	69.0	1.95	66-73	83	84.7	73.6	2.44	68-81	4	4.1	77.5	1.73	75-79
	1978	8	8	68.2	1.16	66-69	89	89	72.6	2.65	65-79	3	3	75.0	1.73	74-77
	1979	1	5	67.0	-	67	20	90	72.4	3.30	66-78	1	5	77.0	-	77
	1980	9	14	67.6	3.40	64-72	51	81	69.8	3.94	62-78	3	5	77.3	.58	77-78

Table 16. Summary of adult steelhead sampling at counting fence in Carnation Creek.

Date of sampling	Migrating upstream (U.S.) downstream (D.S.)	Sex	Length (cm)	Age	Comment
1971	D.S.	♂	61	2+.2	
	D.S.	♂	40	3+.1	In 1971 and 1972 all steelhead
	D.S.	♂	69	3+.2	were sampled as kelts which
1972	D.S.	♂	69	3+.2	were caught in the downstream
	D.S.	♂	67	R.2	smolt traps
	D.S.	♀	70	R.1S1	
	D.S.	♀	60	3.2	
	D.S.	♂	65	R.2	one kelt was caught 15 days
	D.S.	♂	60	R.2	after tagging, 1 km up
	D.S.	♂	70	3.2	Sarita River
1973					
Jan 13	U.S.	♂	64	3.2	
Feb 27	U.S.	♀	68	4.2	Downstream May 8 (kelt)
Feb 27	U.S.	♀	69	4.2	
Mar 13	U.S.	♀	70	-	Downstream May 23 (kelt)
Mar 17	U.S.	♂	73	R.3	Downstream May 24 (kelt)
Mar 18	U.S.	♀	60	3.2	Downstream May 8 (kelt)
Apr 18	U.S.	♀	66	3.2	
Apr 27	U.S.	♀	77	3.3	Downstream May 8 (kelt)
May 23	D.S.	♀	54	3.2	kelt
May 23	D.S.	-	-	-	kelt
1974					
Jan 1	U.S.	♂	77	3+.2S1	
Jan 1	U.S.	♀	58	3+.2	
Mar 5	U.S.	♂	82	R.3S1	Sampled first on 17/3/73 (73 cm)
Apr 11	D.S.	♀	60	4.2	kelt
May 2	U.S.	♀	66.5	3.2	
May 9	D.S.	♂	76	3.2S1	kelt
Dec 17	U.S.	♀	60	3.2	
1975					
Mar 15	U.S.	♂	70	4+.2	
Mar 15	U.S.	♀	75	R.2SS1	
Apr 13	U.S.	♀	66	3.2	
Apr 16	U.S.	♀	63	R.2	
Mar 19	U.S.	♂	71	R.2	
1976					
Mar 18	U.S.	♀	77	3.2S1	
Mar 18	U.S.	♀	66	R.2	
Mar 18	U.S.	♂	67	3.2	Downstream May 18 (kelt)
Mar 22	U.S.	♀	70	4.2	
Mar 27	U.S.	♀	64	4.2	Downstream May 25 (kelt)

Table 16 (cont'd)

Date of sampling	Migrating upstream (U.S.) downstream (D.S.)	Sex	Length (cm)	Age	Comment
1977					
Mar 23	U.S.	♂	64	3.2	Lost downstream at time of tagging. Caught in China
Mar 23	U.S.	♀	64	3.2	Creek April 77
Mar 23	U.S.	♂	69	3.2	Caught in Useless Inlet by commercial fisherman May 29/77
1980					
May 21	D.S.	-	63	3.2	kelt

Table 17. Summary of adult cutthroat trout sampling at counting fence in Carnation Creek.

Date of sampling	Migrating upstream (U.S.) downstream (D.S.)	Sex	Length (cm)	Age	Comment
1971					
Mar 18	D.S.	♀	(1 kg)	-	
1972					
Oct 26	U.S.	-	-	-	
1973					
Oct 16-30	U.S.	-	-	-	3 fish (26-30 cm)
1974					
Apr 3	U.S.	♀?	31	[a]2.+	
Oct 3	U.S.	♂	28	2.+	
Nov 15	U.S.	♀	27	2.+	
Nov 21	U.S.	♂	29	2.+	
Dec 17	U.S.	♀	30.5	2.+	
Dec 21	U.S.	♂?	30	2.+	
1975					
Jan 23	U.S.	♀	33	[a]2.+	[a]By calendar age these fish
Mar 2	U.S.	♂	36	[a]2.+	are .1 with the first
Mar 30	U.S.	♀	32	[a]2.+	ocean annulus just forming
Nov 22	U.S.	?	26	3.+	at the scale margin.
1976					
Mar 18	U.S.	♀	38	R.2	
Apr 12	U.S.	♂	31	R.1	
Oct 10	U.S.	?	28	3.+	
1978					
Feb 5	U.S.	♀	37	[a]3.1	
Mar 8	U.S.	♀	34	[a]3.+	
Mar 15	U.S.	♀	41	3.1	
Mar 23	U.S.	♀	34	-	
Apr 6	D.S.	♀	37	3.1	
Apr 6	D.S.	♀	35	R.2	
Nov 8	U.S.	♀	32	3.+	
1979					
Apr 4	D.S.	-	32	3.2	
May 31	D.S.	-	33	3.2	
Dec 4	U.S.	♀	31	3.+	
Dec 6	U.S.	♂	47	2.1	
1980					
May 1	D.S.	♀	32	2.1	
May 12	D.S.	-	29	3.1	
May 20	D.S.	-	30	2.1	
Nov 24	U.S.	♂	33	2.+	

Table 18. Summary of downstream migrant counts of juvenile salmonids in Carnation Creek 1971-1980.

Species	Age	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Chum	Fry	356,078	148,090	10,497	137,586	6,936	11,060	53,078	52,930	6,025	129
Coho	Fry	122,774	25,664	19,183	21,600	31,362	24,714	7,877	13,975	5,285	27,654
	I+(<60 mm)	62	40	141	184	128	206	103	27	19	21
	1+(≥60 mm)	1,000	1,305	974	1,030	1,119	1,788	1,522	3,841	2,843	3,555
	II+	1,415	574	776	1,444	874	1,068	935	778	668	991
	I+(≥60 mm),II+	2,415	1,879	1,750	2,474	1,993	2,856	2,457	4,619	3,511	4,546
Steelhead	<100 mm	308	39	113	179	128	301	176	7	1	10
	≥100 mm	167	59	93	78	68	113	106	103	20	51
Cutthroat	<100 mm	10	-	8	7	34	16	24	7	3	6
	≥100 mm	19	4	24	48	58	78	93	60	25	60
Cottus asper		668	717	750	338	170	118	311	427	233	300
Cottus aleuticus		167	361	160	313	110	42	7	41	42	61
Sampling period		Feb 25 -Sep 21	Apr 10 -Sep 25	Mar 12 -Sep 28	Mar 13 -Aug 8	Mar 23 -Jul 12	Apr 2 -Sep 18	Mar 23 -Jul 23	Mar 15 -Aug 30	Mar 21 -Jul 25	Mar 18 -Aug 1

NOTES:
- Trapping in 1971 was at a temporary site with fishing capacity severely restricted.
- 1972 counts include adjustments for run prior to April 10 using the 1971 data.
- In 1971 sculpin counts didn't start until May 20.
- Sculpin counts end on: June 29, 1978; June 14, 1979; July 7, 1980.

Table 19. Dates when 25, 50, and 75% of the downstream migration of coho, chum and steelhead occurred in Carnation Creek 1971-1980.

Species	%	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Coho smolts	25	Apr 27	Apr 24	Apr 30	Apr 28	May 2	Apr 27	Apr 25	Apr 18	Apr 18	Apr 22
	50	May 14	May 4	May 8	May 9	May 9	May 10	May 4	May 2	Apr 30	Apr 30
	75	May 22	May 27	May 18	May 19	May 19	May 19	May 13	May 11	May 6	May 7
Steelhead ≥ 100 mm	25	May 13	Apr 25	Apr 30	May 8	May 15	May 10	May 3	Apr 22	Apr 14	May 1
	50	May 20	Jun 9	May 23	May 22	May 27	May 24	May 9	May 10	May 6	May 9
	75	Jun 11	Jun 12	May 25	May 28	May 31	Jun 5	May 25	May 14	May 6	May 19
Coho fry	25	May 12	May 9	Apr 21	Apr 24	Apr 22	Apr 30	Apr 7	Apr 7	Apr 16	Apr 10
	50	May 18	Jun 4	May 7	May 13	Apr 27	May 17	Apr 10	Apr 15	Apr 23	Apr 17
	75	Jun 3	Jul 13	May 11	May 24	May 2	May 25	Apr 16	Apr 18	May 5	May 1
Chum fry	25	Apr 27	May 6	May 2	Apr 24	Apr 23	Apr 19	Apr 5	Apr 7	Apr 19	Apr 3
	50	May 1	May 11	May 7	Apr 29	May 1	Apr 24	Apr 8	Apr 12	Apr 23	Apr 5
	75	May 7	May 15	May 9	May 4	May 11	May 4	Apr 12	Apr 15	Apr 24	Apr 5

Table 20. Mean lengths, standard deviation and range of coho salmon fry at ~ 10 day intervals in the 1973-1980 Carnation Creek outmigrations.

Date	$\bar{x}$ (mm)	n	s	Range (mm)
		1973		
Apr 26	38.1	58	1.10	35-41
May 3	38.4	51	1.60	35-41
13	37.2	52	2.22	33-42
25	38.0	76	1.84	33-45
Jun 2	39.2	41	1.82	35-43
13	40.2	70	2.66	34-48
		1974		
Mar 17	35.5	34	1.46	33-39
29	37.4	50	1.51	33-41
Apr 8	37.4	19	1.67	34-40
18	37.6	44	1.43	35-40
28	36.8	38	1.55	33-40
May 8	37.9	55	1.88	32-42
18	37.8	50	1.57	33-40
28	38.2	52	2.62	30-44
Jun 7	40.2	36	3.12	35-49
Jul 10	41.7	60	3.17	35-54
Sep 8	44.2	56	4.30	40-60
Oct 1	46.4	29	2.80	40-52
		1975		
Apr 2	37.1	60	1.60	32-40
10	36.6	62	1.18	34-39
20	38.8	54	1.20	37-41
30	38.7	52	1.05	36-42
May 10	38.9	50	1.37	35-41
25	38.9	31	1.67	34-41
Jun 4	39.5	73	1.45	36-42
		1976		
Apr 3	39.6	54	.88	38-42
14	38.0	66	1.32	35-40
24	38.5	50	1.07	36-41
May 2	38.4	53	.99	36-40
11	37.6	52	1.23	35-41
21	39.1	58	1.30	36-43
Jun 4	39.5	34	2.61	32-46
13	37.4	45	1.63	35-44
22	40.9	53	3.74	35-50
Jul 4	42.0	64	3.04	34-49
14	43.8	51	2.52	38-50
29	43.4	50	2.80	38-50
Aug 14	44.1	54	2.72	37-50

Table 20 (cont'd)

Date	$\bar{x}$ (mm)	n	s	Range (mm)
		1977		
Mar 24	37.1	49	.95	35-40
Apr 3	36.9	45	.69	36-38
14	38.2	48	1.04	36-40
26	37.6	51	1.31	34-44
May 3	38.4	45	1.32	36-43
Jun 6	46.0	14	4.44	37-51
		1978		
Mar 24	39.1	88	.96	37-44
Apr 1	36.8	69	1.10	34-39
10	35.6	50	1.12	33-39
20	36.3	18	.97	34-38
30	39.0	66	1.25	35-42
May 11	38.7	71	1.38	37-46
29	40.3	51	2.98	34-49
Jun 10	42.3	69	3.43	34-52
13	42.3	117	3.30	35-52
24	46.8	30	2.85	42-53
Aug 15	48.5	170	3.43	40-58
		1979		
Mar 24	36.3	48	.90	33-38
Apr 2	35.0	54	1.34	33-38
13	37.0	50	1.25	34-39
21	38.2	50	.72	36-39
May 2	37.3	50	1.06	36-43
18	41.7	40	3.71	38-49
Jun 5	46.5	28	4.15	38-56
Jul 11	50.7	183	4.47	40-62
		1980		
Mar 18	38.0	61	1.53	34-40
27	38.2	46	1.49	35-41
Apr 3	37.7	172	1.50	35-43
12	37.5	52	1.24	35-40
23	37.1	62	2.26	33-45
May 3	36.8	25	.71	35-38
12	38.6	17	2.32	36-44
22	38.0	63	1.61	34-46
Jun 2	39.1	16	2.96	39-44
9	38.2	49	2.28	32-45
12	39.8	56	2.99	34-52
24	41.2	75	2.45	37-47
Jul 2	41.3	138	2.96	35-51
11	41.9	49	2.22	38-48

Table 21. Mean length, standard deviation and range of chum salmon fry at ~ 10 day intervals in the 1973-1980 Carnation Creek outmigrations.

Date	$\bar{x}$ (mm)	n	s	Range (mm)
		1973		
Apr 26	42.6	48	1.411	38-45
May 3	40.9	60	1.523	37-43
13	42.2	51	1.617	39-45
		1974		
Apr 8	41.0	66	1.312	37-43
18	41.1	48	.799	39-43
28	42.0	45	.866	40-44
May 8	42.3	54	1.479	40-45
18	41.0	50	2.218	37-44
28	42.7	50	1.222	37-45
		1975		
Apr 16	41.5	50	.614	40-43
26	43.2	50	1.001	41-45
May 4	41.1	51	1.111	40-45
10	42.0	50	.937	40-44
20	41.3	50	.882	39-43
Jun 4	41.4	26	1.027	40-44
		1976		
Apr 3	43.0	31	.752	42-45
14	43.2	49	1.000	40-45
24	42.3	57	.985	40-44
May 2	42.5	50	1.015	41-45
11	42.5	50	.909	40-45
		1977		
Mar 24	41.0	57	1.076	38-44
Apr 3	41.2	50	1.674	38-45
14	42.7	50	1.168	40-45
May 26	42.3	40	1.289	38-44
3	43.0	41	1.695	38-47
		1978		
Mar 24	42.1	76	1.937	38-45
Apr 1	40.5	50	.886	39-43
10	42.0	50	1.068	40-44
20	41.9	33	.914	40-44
30	42.5	50	.788	41-44

Table 21 (cont'd)

Date	$\bar{x}$ (mm)	n	s	Range (mm)
		1979		
Mar 24	44.4	65	1.155	41-46
Apr 15	41.0	51	.761	39-42
21	41.3	52	.977	39-43
May 3	41.3	17	1.169	39-43
		1980		
Apr 3	41.7	57	1.082	38-44

Table 22. Age composition and mean length of juvenile rainbow trout in the downstream migrations in Carnation Creek.

Year	Age	n	$\bar{x}$ (mm)	s	Range (mm)
1971	I	123	67.1	6.9	47-
	II(all)	190	95.1	13.3	-137
	II(≥100 mm)	53	113.1	11.5	100-137
	III	64	162.3	14.04	140-192
	IV	7	197.3	15.54	172-213
1972	I	35	67.6	12.03	48-91
	II(all)	21	113.7	12.79	93-137
	II(≥100 mm)	17	118.3	9.18	102-137
	III	23	173.9	15.72	140-197
	IV	2	220.5	2.12	219-222
1973	I	20	70.0	9.68	54-97
	II(all)	67	96.2	10.89	80-124
	II(≥100 mm)	25	107.9	7.14	100-124
	III	32	153.2	19.55	112-195
	IV	2	178.5	30.41	157-200
1974	I	110	68.2	8.54	52-92
	II(all)	52	99.9	12.89	78-131
	II(≥100 mm)	24	111.5	7.62	101-131
	III	32	157.7	19.50	126-199
	IV	8	193.4	13.35	172-214
1975	I	87	75.0	9.97	56-97
	II(all)	63	99.4	15.89	78-159
	II(≥100 mm)	21	116.3	16.43	100-159
	III	40	153.3	14.95	126-188
	IV	5	183.6	11.46	169-199
1976	I	122	68.0	6.89	52-85
	II(all)	221	92.4	9.23	73-125
	II(≥100 mm)	47	105.9	6.40	100-125
	III	50	146.4	15.83	108-172
	IV	13	186.5	18.30	164-235
1977	I	33	76.7	10.40	57-105
	II(all)	191	94.6	10.17	76-140
	II(≥100 mm)	49	108.1	8.90	100-140
	III	38	145.2	16.37	102-175
	IV	15	174.9	22.04	148-227
1978	I	13	100.2	15.59	72-117
	II(all)	43	121.6	13.62	98-151
	II(≥100 mm)	42	122.2	13.27	100-151
	III	51	152.6	16.04	104-190
	IV	3	206.3	10.21	199-218

Table 22 (cont'd)

Year	Age	n	$\bar{x}$ (mm)	s	Range (mm)
1979	I	2	116.5	6.36	112-121
	II(all)	5	112.6	13.22	94-128
	II(≥100 mm)	4	117.2	9.43	105-128
	III	13	146.0	11.97	131-173
	IV	1	203.0		
1980	I	16	95.0	13.15	74-124
	II(all)	5	146.6	12.44	128-158
	II(≥100 mm)	5	146.6	12.44	128-158
	III	38	169.0	16.59	140-204
	IV	2	229.0	14.14	219-239

Table 23. Age composition and mean lengths of juvenile cutthroat trout in the downstream migrations in Carnation Creek.

Year	Age	n	$\bar{x}$ (mm)	s	Range (mm)
1971	I	10	78.8	8.20	64-92
	II(all)	16	124.9	21.27	99-159
	II(≥100 mm)	15	126.6	20.83	100-159
	III	3	181.0	15.87	169-199
	IV	1	242.0	-	-
1972	I	0			
	II(all)	2	137.0	41.01	108-166
	II(≥100 mm)	2	137.0	41.01	108-166
	III	2	174.5	14.85	164-185
1973	I	4	89.3	13.10	70-98
	II(all)	24	120.3	20.59	93-165
	II(≥100 mm)	20	125.2	19.00	103-165
	III	4	184.3	27.77	164-225
1974	I	3	82.0	11.27	75-95
	II(all)	21	121.0	16.61	96-152
	II(≥100 mm)	19	123.6	15.29	101-152
	III	24	155.9	16.23	127-186
	IV	1	184.0		184
1975	I	12	88.7	13.82	65-115
	II(all)	56	112.4	20.31	77-154
	II(≥100 mm)	36	125.0	13.18	100-154
	III	18	159.6	18.99	132-200
	IV	1	191.0	-	-
1976	I	2	75.5	14.85	65-86
	II(all)	52	107.2	13.99	79-137
	II(≥100 mm)	39	113.2	10.26	100-137
	III	34	144.7	13.98	119-175
	IV	2	181.0	1.41	180-182
1977	I	6	85.3	10.37	74-101
	II(all)	60	109.5	12.74	80-139
	II(≥100 mm)	47	114.7	8.49	100-139
	III	41	140.2	14.30	110-171
	IV	3	198.7	19.09	177-213
1978	I	19	105.9	10.50	86-124
	II(all)	34	115.9	12.51	98-144
	II(≥100 mm)	33	116.4	12.29	100-144
	III	14	147.2	13.67	126-172

Table 23 (cont'd)

Year	Age	n	$\bar{x}$ (mm)	s	Range (mm)
1979	I	5	108.0	8.86	95-120
	II(all)	17	115.8	15.30	91-141
	II($\geq$100 mm)	15	119.5	9.53	102-141
	III	6	148.7	14.38	126-171
1980	I	13	98.9	13.10	80-129
	II(all)	34	134.8	18.13	101-180
	II($\geq$100 mm)	34	134.8	18.13	101-180
	III	19	166.7	17.22	142-195

Table 24. Late summer resident population estimates on lower Carnation Creek (3070 m) 1970-1980.

Species	Age			1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Coho	0		N	14142	11834	9223	9063	12460	11482	12327	10603	10928	13230	20953
		95%	lower	11451	9571	8734	8525	12287	11366	12130	10480	10838	13136	20810
		C.I.	upper	16832	14099	9714	9603	12635	11598	12515	10723	11014	13322	21093
	I		N	795	1286	700	1228	1112	1333	1232	1238	1089	1547	2142
		95%	lower	340	690	591	1086	1076	1310	1178	1198	1067	1479	2052
		C.I.	upper	1245	1881	807	1362	1153	1360	1286	1274	1117	1617	2229
R.B.T.	0		N	1691	3449	1593	5114	3545	2892	2939	344	136	-	269
		95%	lower	767	1966	1272	4545	3330	2769	2806	179	126	-	176
		C.I.	upper	2609	4931	1917	5683	3770	3012	3068	511	152	-	367
	I		N	694	499	385	229	456	376	355	232	94	-	16
		95%	lower	127	154	227	0	399	332	281	-	88	-	-
		C.I.	upper	1262	848	544	504	513	420	420	632	101	-	-
	II		N	392	120	58	101	~76	~85	~80	258	68	39	24
		95%	lower	136	34	-	72	-	-	-	-	21	12	-
		C.I.	upper	653	203	230	124	-	-	-	611	121	59	-
	III		N	-	130	-	9	10	-	-	-	9	-	-
		95%	lower	-	21	-	-	-	-	-	-	-	-	-
		C.I.	upper	-	235	-	-	-	-	-	-	-	-	-
Cottus aleuticus			N	-	19250	2286	4536	4058	2488	1642	1617	3410	1845	1832
		95%	lower	-	11542	1835	2780	2465	2155	1173	1208	3017	1289	1605
		C.I.	upper	-	26962	2742	6295	5651	2812	2116	2025	3806	2595	2055

Table 25. Late summer fish density (fish/m^2) by study section and species in lowest 3070 m of Carnation Creek 1970-1980.

Species	Age	Section	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Coho	0	II	.95	1.14	.60	.61	.65	.61	.72	.24	.45	.72	.70
		III	1.26	.82	.59	.52	.76	.38	.58	.30	.35	.60	.98
		IV		.44	1.01	1.05	1.27	.98	.92	.44	.74	1.14	1.97
		V				.44	1.01	.86	.88	1.18	.66	.29	1.24
		VI	1.86	.96	1.01	.93	1.30	1.00	.69	.78	.60	.51	1.15
		VIII	1.05	.99	.86	-	.68	.68	.47	.30	.27	.94	1.58
		Combined	1.23	.89	.80	.71	.92	.75	.69	.53	.50	.74	1.26
	I	II	.06	.16	.05	.12	.10	.13	.09	.10	.02	.10	.12
		III	.07	.11	.09	.10	.06	.05	.08	.06	.04	.12	.19
		IV		.05	.06	.11	.12	.09	.08	.09	.05	.11	.19
		V				.05	.08	.05	.07	.06	.10	.10	.10
		VI	.09	.05	.03	.17	.08	.13	.07	.04	.10	.07	.11
		VIII	.02	.06	.09	.04	.03	.03	.04	.03	.02	.04	.13
		Combined	.07	.10	.06	.10	.08	.09	.07	.06	.05	.09	.13
Rainbow	0	II		.08	.04	.04	.01	.05	.28				
		III		.31	.17	.05	.02	.12	.14				
		IV		.15	.01	.32	.05	.16	.20				
		V				.75	.90	.30	.37				
		VI		.46	.08	.77	.38	.28	.01				
		VIII		.47	.47	1.22	.58	.34	.04				
		Combined	.15	.26	.14	.41	.26	.19	.16	.02	.01	-	.02
	I	II			.01	.02	.02	.01	.003				
		III			.01	.03	.04	.01	.003				
		IV			.05	.003	.03	.01	.02				
		V					.02	.01	.01				
		VI			.02	~.01	.04	.05	.05				
		VIII			.13	.02	.06	.11	.03				
		Combined	.06	.04	.03	.02	.03	.02	.02	.01	.004	.002	.001
	II	Combined	.03	.01	.005	.01	.006	.006	~.004	.01	.003		.001

Table 25 (cont'd)

Species	Age	Section	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Cutthroat	0	Combined									.04	.02	.01
	I										.006	.005	.01
	II										.004	.0004	.003
	III										.002		.001
Cottus asper		II		.37	.05	.03	.02	.06	.03	.04	.04	.10	.05
Cottus aleuticus		II		3.02	.59	2.05	1.22	.40	.40	.25	.61	.36	.22
		III		.34	.12	.16	.32	.09	.02	.02	.04	.01	.05
		IV		.35	.08	.08	.03	.03	.03	.03	.10	.02	.06
		V				.13	.28	.10	.04	.02	.03	.08	.10
		VI		1.05	.05	.15	.07	.08	.04	~.04	.05	.03	.08
		VIII		.88	.19	.13	.10	.20	.04	.15	.05	.07	.15
		Combined		1.44	.20	.36	.30	.16	.09	.08	.16	.10	.11

Note: Combined is not a mean but derived from areas and catches in all sections combined for population estimates.

Table 26. A summary of late summer fish density (fish/m^2) by year, location, species, and age.

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Lower Carnation	Coho	0	1.15	.88	.80	.73	.92	.75	.69	.53	.50	.74	1.26
		I	.06	.10	.06	.10	.08	.09	.07	.06	.05	.09	.13
	R.B.T.	0	.14	.26	.14	.41	.26	.19	.16	.02	.006		.016
		I	.06	.04	.03	.02	.03	.02	.02	.01	.004		.001
		II	.03	.01	.005	.01	.01	.005	.004	.01	.003	.0002	.001
		III		.01			.001				.0004		
	C. aleuticus			1.43	.20	.36	.30	.16	.09	.08	.16	.10	.11
Upper Carnation	C.T.	0		.01	.01	.23	.13	.07	.19	.16	.06	.29	.13
		I			.15	.10	.13	.07	.12	.11	.06	.16	.11
		II		.16	.08	.13	.06	.09	.05	.02	.02	.03	.04
		III		.002		.05	.01	.01	.01	.01		.0005	
Tributary "C"	C.T.	0			.07	.48	.69	.41	.33	.15	.20	~.05	.25
		I			.56	.29	.24	.30	.21	.29	.32	.12	.05
		II			.08	.26	.02	.07	.05	.03	.04	.05	.04
		III				.02	.02			.02			
Useless Creek	Coho	0			.52	~.03	.14	.32	.28	.18	.13	.38	.35
		I			.11	.02		.01					
	C.T.	0			.02	.18	.05	.09		.02	.03	.12	.08
		I			.10	.08	.18	.10	.02	.07	.06	.02	.07
		II			.02	.02	.01	.06	.02	.02	.02	.01	.01
		III					.01	.01	.01	.01			
	C. aleuticus				.62	.32	.43	.62	.39	.36	.73	.79	~.24
Fredericks Creek	Coho	0		.48	.55		.21	.42	.37	.32		.39	
		I			.03			.01	.01				
	R.B.T.	0			.05		.01	.04	.01	.05		.06	
		I			.01		.002						
		II								.01			
	C. asper			1.19	.23		.48	.34	.17	{.51}		.11	
	C. aleuticus						.47	.38	.27	{ }		2.50	

Table 26 (cont'd)

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
South Pachena	Coho	0		.70	.33	.29	.21	.68	.43	.40	.37	1.26	.98
		I			.05	.06	.05	.08	.05	.05	.02	.05	.05
	RBT	0		.38	.10	.27	.04	.20	.14	.21	.14	.27	.20
		I		.04	.05	.01	.01		.01	.01	.01	.02	.03
		II		.01	.02								.002
	C. asper			1.78	.40	.12	.21	.34	.24	.20	.25	.22	.26
	C. aleuticus			.03	.08	.08	.24	.08	.33	.33	.36	~.22	.16
Ritherdon Creek	C.T.	0		1.34	.22	.83	.53	.57	.21	.16	.06	.11	~.14
		I		.15	.33	.13	.17	.12	.09	.04	.05	~.03	.03
		II		.05	.06	.01	.02	.04	.04	.04	~.01	.04	.003
		III		.04			.01		.01	.01	.003	.01	.003

Table 27. A summary of late summer salmonid biomass (gm/m^2) by year, location, species, and age.

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Lower Carnation	Coho	0	2.28	1.25	1.06	1.01	1.21	1.23	.91	1.26	1.03	1.60	1.90
		I	.44	.64	.41	.45	.38	.41	.32	.36	.30	.50	.69
	R.B.T.	0	.20	.19	.08	.32	.21	.20	.15	.04	.02		.05
		I	.39	.26	.20	.11	.16	.16	.11	.11	.05		.01
		II	.62	.14	.15	.12	.10	.08	.04	.17	.07	.04	.06
		III		.33		.04	.02				.02		
Upper Carnation	C.T.	0		.44	.01	.06	.07	.03	.10	.12	.06	.31	.13
		I		.53	1.10	.72	.55	.30	.69	.66	.42	1.10	.76
		II		2.43	1.79	1.79	.90	1.06	.85	.23	.26	.59	.83
		III		.06		1.40	.42	.27	.30	.07		.16	
Tributary "C"	C.T.	0			.05	.33	.65	.39	.30	.14	.31	~.13	.65
		I			3.25	1.72	1.43	2.18	1.31	1.55	2.14	1.05	.65
		II			1.49	3.29	.42	1.14	1.16	.41	1.19	1.01	.67
		III				.30	.95			.37			
Useless Creek	Coho	0			.76	.08	.28	.66	.38	.53	.32	.89	.66
		I			.08	.11		.04					
	C.T.	0			.01	.23	.04	.05		.01	.02	.11	.05
		I			1.04	.70	1.20	.60	.08	.38	.38	.12	.46
		II			.59	.73	.38	.96	.22	.27	.39	.05	.16
		III					.77	.40	.37	.19			
Fredericks Creek	Coho	0		1.06	1.30		.44	1.31	.60	.95		1.23	
		I			.24			.05	.06				
	R.B.T.	0			.05		.01	.07	.02	.07		.08	
		I			.18		.03						
		II								.02			
South Pachena	Coho	0		1.87	.70	.40	.30	1.28	.56	1.06	.86	1.59	1.69
		I			.61	.34	.29	.57	.26	.34	.17	.44	.39

Table 27 (cont'd)

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
South Pachena	R.B.T.	0		.57	.11	.26	.03	.23	.13	.29	.19	.31	.22
		I		.44	.40	.16	.15		.04	.08	.07	~.15	.42
		II		.23	.60								~.48(II,III)
Ritherdon Creek	C.T.	0		2.92	.31	1.45	.80	1.02	.22	.25	.11	.16	~.24
		I		1.46	2.58	1.28	1.35	.99	.46	.36	.42	~.35	.42
		II		.70	1.61	.34	.59	.83	.50	.61	~.29	.81	.16
		III		1.28			.57		.22	.16	.17	.62	.26

Table 28. A summary of late summer mean fork lengths (mm) for all salmonid species for all streams by year.

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Lower Carnation	Coho	0	52.4	48.1	46.1	50.6	49.5	54.3	49.5	59.9	57.1	58.0	51.7
		I	78.5	77.4	77.5	75.7	78.5	76.1	75.1	80.1	80.9	79.9	76.7
	R.B.T.	0	51.3	40.5	40.8	44.7	44.5	47.9	46.6	59.9	63.7		68.0
		I	80.4	79.8	75.9	83.8	83.0	83.5	84.3	94.9	106.6		98.0[a]
		II	115.4	107.2	133.8	111.7	128.0	111.4	117.8	108.4	129.5	124.7[a]	156.0[a]
		III		141.6		168.0[a]	141.0[a]				169.0[a]		
Upper Carnation	C.T.	0		32.6	30.0[a]	31.8	38.7	38.4	38.6	43.5	44.7	48.8	46.0
		I		77.5	81.8	91.1	75.7	74.7	84.0	85.0	88.8	88.0	88.1
		II			118.3	114.5	113.8	109.9	116.2	111.7	117.7[a]	131.0	126.8
		III		151.0		143.4	143.5[a]	158.5[a]	164.0[a]	128.0[a]		157.0[a]	
Tributary "C"	C.T.	0			38.4	43.0	47.2	45.9	44.7	46.2	53.8	59.3[a]	62.4
		I			75.3	83.3	83.9	90.9	86.0	82.5	86.6	92.2	105.0[a]
		II			111.3	108.9	117.5[a]	115.5	123.6	114.0[a]	136.5[a]	122.0[a]	121.0
		III				159.0[a]	156.5[a]			132.0[a]			
Tributary "1600"	Coho	0			50.8	47.6	49.2	52.0	49.0		56.6	63.7	51.6
		I			80.0	75.9	76.4	79.3	72.3		82.3[a]	81.2	77.0
Useless Creek	Coho	0			48.7	66.2[a]	57.5	58.7	50.9	63.7	60.9	58.7	55.9
		I			78.5	79.7[a]		84.0[a]					
	C.T.	0			28.3[a]	49.3	42.4	39.3		41.7[a]	44.2	45.0	41.0
		I			92.8	99.5	85.3	84.8	77.0[a]	79.9	88.8	86.7[a]	85.6
		II			126.7[a]	163.3[a]	131.7[a]	119.4	101.0[a]	116.0[a]	128.3[a]	102.0[a]	118.0[a]
		III			181.0[a]		161.7[a]	174.0[a]	157.5[a]	161.0[a]			
Fredericks Creek	Coho	0		53.4	53.6	55.6	56.9	65.9	52.8	64.6	64.2	64.1	
		I			81.8	74.6		84.3[a]	79.0[a]				
	R.B.T.	0			42.3			54.7	52.8	52.3		52.2	
		I			109.0[a]								
		II								99.0[a]			

Table 28 (cont'd)

Location	Species	Age	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
South Pachena	Coho	0		55.6	51.9	50.6	51.0	56.6	50.2	62.1	59.9	48.5	52.9
		I			90.4	79.9	77.1	88.3	78.1	83.5	95.6	88.8	86.8
	R.B.T.	0		48.8	44.4	47.9	43.7	49.5	46.2	52.8	52.6	48.3	46.3
		I		94.1	82.6	103.5[a]	96.7		80.5[a]	90.0[a]	107.0[a]	90.4	107.5
		II		132.3	134.7								144.0[a]
Ritherdon Creek	C.T.	0		56.5	48.5	57.0	52.6	56.7	47.8	54.9	56.0	52.9	54.5
		I		90.7	84.5	101.8	92.7	95.4	81.6	96.2	98.8	107.0[a]	106.8
		II		106.1	124.8	153.5[a]	133.7	133.1	111.7	121.5	129.0[a]	126.8	168.0[a]
		III		131.1[a]			171.0[a]		139.0[a]	152.0[a]	171.0[a]	185.0[a]	200.0[a]

[a]Four or less fish in sample.

Table 29. Summary of lipid content of juvenile salmonids in Carnation Creek.

Date	Species	Location	Size	n	Length $\bar{x}$	Length s	Weight (gm) $\bar{x}$	Weight (gm) s	Lipid (gm) $\bar{x}$	Lipid (gm) s
March 8/73	Coho	Lower	≥66	10	71.90	6.71	3.900	1.360	.07711	.02949
			≤62	9	53.44	5.17	1.622	.512	.03590	.00316
			all	19	63.16	11.14	2.821	1.551	.05759	.02983
April 18/73	Coho	Lower	≥70	11	85.36	15.37	7.685	4.507	.11166	.08508
			≤65	7	57.43	5.19	2.137	.561	.03408	.02792
			all	18	74.50	18.57	5.527	4.450	.08149	.07778
Sept. 17/73	Coho	II	≥72	4	76.25	5.97	5.198	1.583	.11962	.08037
			≤60	9	52.22	6.69	1.702	.689	.03460	.01224
			all	13	59.62	13.11	2.778	1.940	.06076	.05813
	Rainbow	II	≥82	4	94.75	13.65	8.600	4.085	.15175	.07899
			49	1	49	1.04			.03884	
			all	5	85.60	23.63	7.088	4.893	.12917	.08502
	Coho	VIII	≥71	5	82.40	12.68	6.562	3.286	.19375	.12149
			≤61	11	48.55	6.62	1.195	.531	.03409	.01378
			all	16	59.13	18.30	2.872	3.109	.08399	.09949
	Rainbow	VIII	87	1	87		3.89		.10653	
			≤44	10	40.40	3.13	.516	.135	.01807	.00317
			all	11	44.64	14.36	.823	1.025	.02611	.02683

Table 29. Summary of lipid content of juvenile coho in Carnation Creek.

Year	Date	Location	Size	n	Length (mm)		Weight (g)		Lipid (g)	
					$\bar{x}$	S	$\bar{x}$	S	$\bar{x}$	S
1974	February 11	200 m	≥5 g	10	81.60	8.09	7.159	2.281	.4640	.2547
			<5 g	30	60.30	7.93	2.681	1.050	.0876	.0529
			ALL	40	65.62	12.21	3.800	2.432	.1817	.2104
1974	April 20	Fence	≥5 g	7	85.86	5.93	6.734	1.370	.1199	.0173
			<5 g	13	70.31	7.20	3.558	1.142	.0629	.0173
			ALL	20	75.75	10.09	4.670	1.957	.0829	.0331
1974	May 20	Fence	≥5 g	7	106.43	14.77	13.140	4.622	.4160	.3130
			<5 g	3	74.67	6.51	3.923	.988	.0791	.0264
			ALL	10	96.90	19.76	10.375	5.855	.3149	.3031
1974	September 16	II	≥5 g	3	82.67	5.69	6.133	1.032	.1174	.0519
			<5 g	7	59.86	8.88	2.363	.977	.0365	.0141
			ALL	10	66.70	13.46	3.494	2.047	.0608	.0479
1974	October 22	200 m	<5 g	10	57.70	10.73	2.141	1.111	.0399	.0316
1975	January 16	200 m	≥5 g	1	74	-	5.30	-	.1214	-
			<5 g	13	59.08	11.27	2.256	1.239	.0456	.0244
			ALL	14	60.14	11.54	2.473	1.442	.0510	.0300
1975	March 10	Fence	≥5 g	2	84.0	2.83	5.77	.792	.0823	.0000
			<5 g	13	56.92	10.14	2.16	1.133	.0347	.0200
			ALL	15	60.53	13.39	2.64	1.661	.0411	.0244

Table 29. Summary of lipid contents of juvenile coho in Carnation Creek.

Year	Date	Location	Size (gm)	n	Length (mm) $\bar{X}$	Length (mm) S	Weight (gm) $\bar{X}$	Weight (gm) S	Lipid/gram of fish $\bar{X}$ mg/gm	Lipid/gram of fish S
1975	April 24	Fence	♀≥5	4	94.5	16.90	9.02	4.42	14.65	1.93
			♂5	5	66.0	9.97	3.08	1.26	17.18	4.95
			All	9	78.7	19.56	5.72	4.23	16.06	3.93
1975	May 30	Fence	♀≥5	7	95.9	10.99	8.85	2.92	14.41	2.20
			♂5	4	67.2	4.99	3.03	.67	20.50	7.06
			All	11	85.5	16.98	6.73	3.73	16.63	5.22
1975	Sept. 18	II	♀≥5	3	86.3	5.69	7.91	2.26	32.87	9.32
			♂5	7	58.0	10.13	2.19	1.27	16.04	3.56
			All	10	66.5	16.22	3.91	3.14	21.09	9.68
1975	Nov. 19	200 m	♀≥5	4	81.5	6.25	6.46	.43	31.62	4.28
			♂5	10	64.8	5.96	3.34	.80	30.87	4.61
			All	14	69.6	9.74	4.23	1.62	31.09	4.37
1976	Feb. 2	200 m	♀≥5	-	-	-	-	-	-	-
			♂5	12	65.2	6.98	2.80	.76	22.52	4.35
			All	12	65.2	6.98	2.80	.76	22.52	4.35
1976	April 5	Fence	♀≥5	2	83.5	2.12	5.83	.16	15.15	1.91
			♂5	11	70.8	4.73	3.43	.83	14.00	1.63
			All	13	72.8	6.46	3.80	1.18	14.18	1.64
1976	May 20	Fence	♀≥5	7	97.7	15.12	9.86	4.36	15.46	1.77
			♂5	3	67.0	6.56	2.92	.80	14.60	2.52
			All	10	89.1	19.10	7.78	4.91	15.21	1.92
1976	Sept. 20	II	♀≥5	2	78.5	2.12	5.33	.24	14.50	.42
			♂5	8	57.0	10.35	2.20	1.14	16.02	2.66
			All	10	61.3	12.88	2.82	1.66	15.72	2.43
1976	Nov. 9	200 m	♀≥5	2	75.5	2.12	5.77	.08	32.75	17.32
			♂5	8	55.6	9.77	2.10	1.33	17.45	4.75
			All	10	59.6	12.04	2.84	1.94	20.51	9.62
1976	Dec. 21	200 m	♀≥5	2	89.5	13.43	7.50	2.53	27.60	3.54
			♂5	8	59.7	8.89	2.55	1.23	26.12	4.10
			All	10	65.7	15.46	3.54	2.50	26.42	3.85
1977	March 25	200 m	♀≥5	-	-	-	-	-	-	-
			♂5	11	58.2	5.31	2.31	.71	21.53	2.19
			All	11	58.2	5.31	2.31	.71	21.53	2.19
1977	April 12	Fence	♀≥5	5	85.0	5.00	6.58	1.71	17.96	6.23
			♂5	5	69.2	7.53	3.49	1.14	13.74	2.09
			All	10	77.1	10.28	5.03	2.13	15.85	4.91

Table 29 (cont'd)

Year	Date	Location	Size (gm)	n	Length (mm) $\bar{X}$	Length (mm) S	Weight (gm) $\bar{X}$	Weight (gm) S	Lipid/gram of fish $\bar{X}$ mg/gm	Lipid/gram of fish S
1977	May 1	Fence	≥5	8	96.2	10.75	8.82	2.98	14.25	1.41
			<5	2	75.5	3.54	4.56	.57	15.25	.35
			All	10	92.1	12.96	7.97	3.19	14.45	1.32
1977	Sept. 29	200 m	≥5	4	81.5	3.42	6.25	1.00	30.07	5.18
			<5	7	67.4	7.70	3.46	1.08	19.96	6.16
			All	11	72.5	9.46	4.47	1.73	23.64	7.54
1977	Dec. 2	200 m	≥5	6	79.3	3.67	6.46	.75	28.12	6.30
			<5	4	70.5	5.20	4.31	.35	33.30	2.67
			All	10	75.8	6.11	5.60	1.26	30.19	5.62

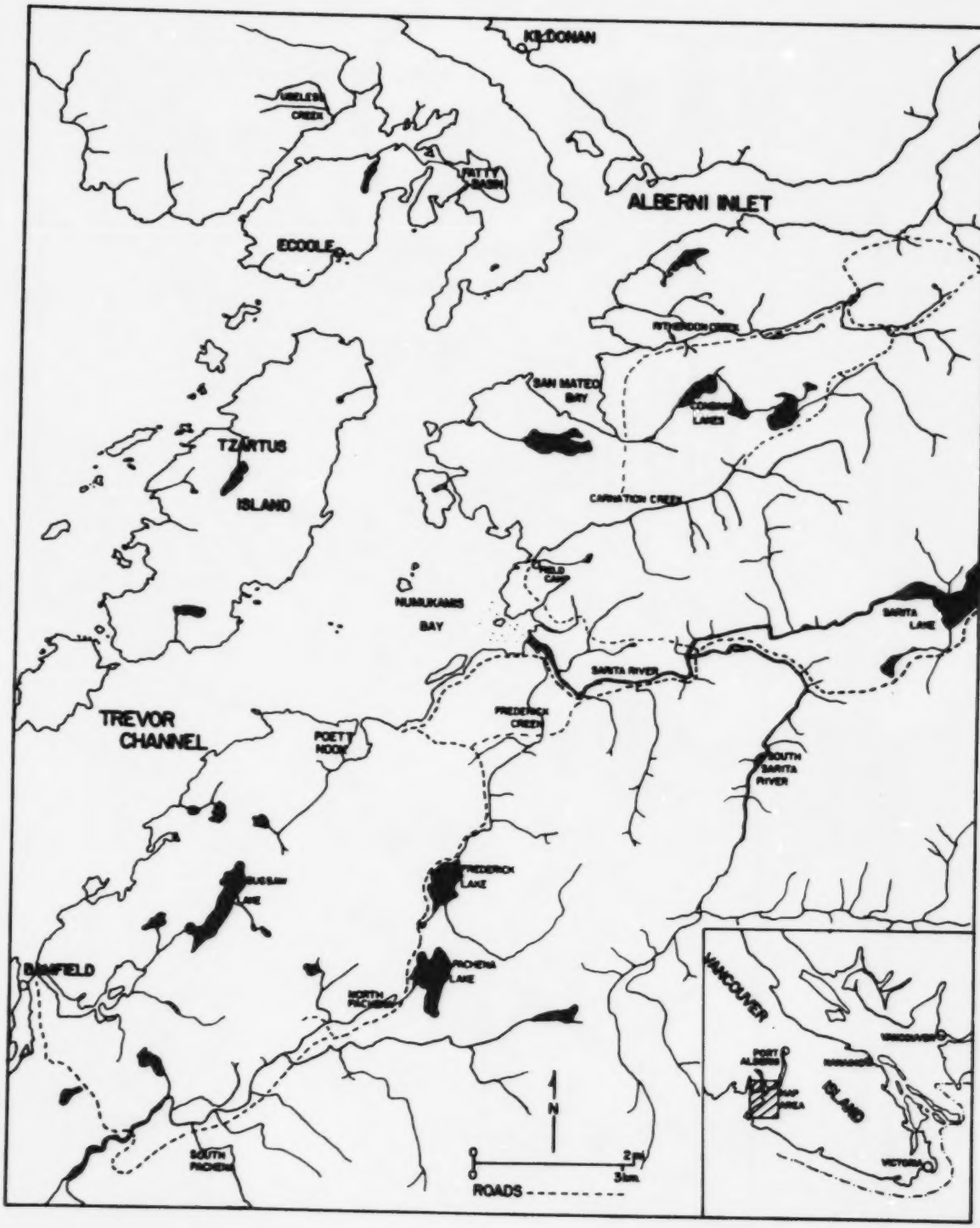


Fig. 1. Map showing the location of study streams in the Barkley Sound area. Only main roads are shown.

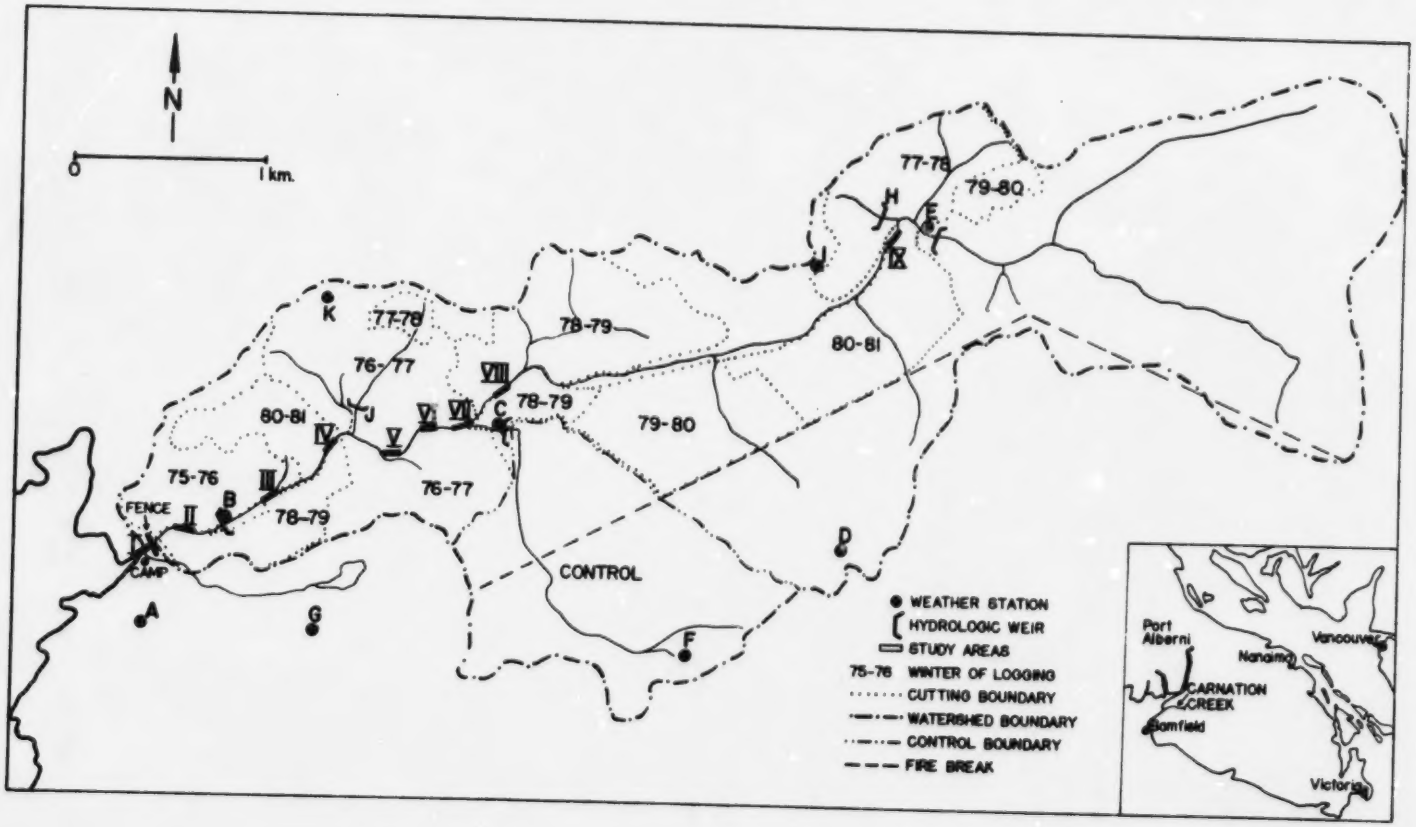


Fig. 2. Carnation Creek Watershed showing the main channel and tributaries; location of hydrometeorological stations, fish counting fence, stream study sections and clearcuts.

Fig. 3. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1971.

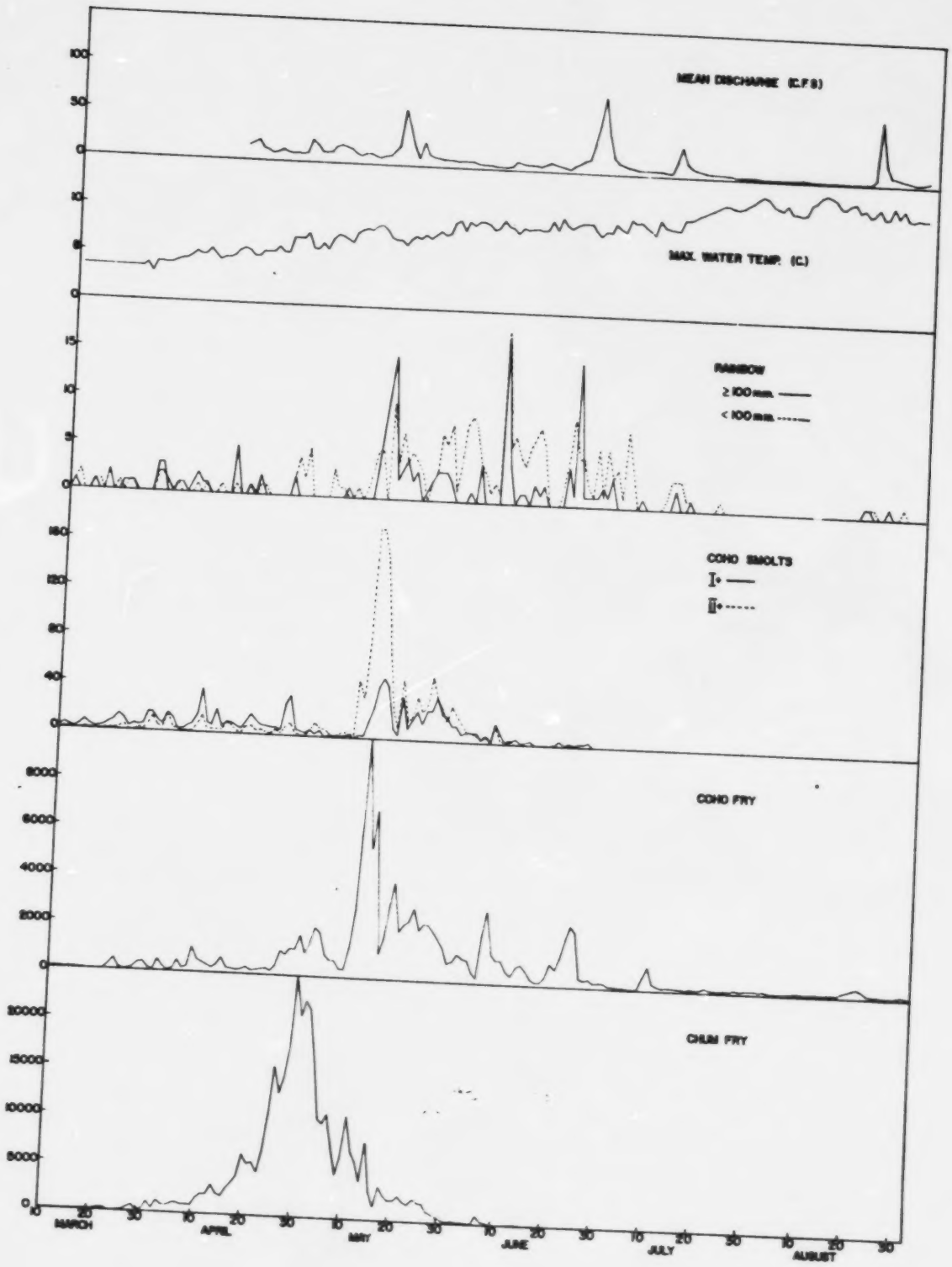

MEAN DISCHARGE (C.F.S)
MAX. WATER TEMP. (C.)
RAINBOW
≥ 100 mm.
< 100 mm.
COHO SMOLTS
I+
II+
COHO FRY
CHUM FRY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST

Fig. 4. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1972.

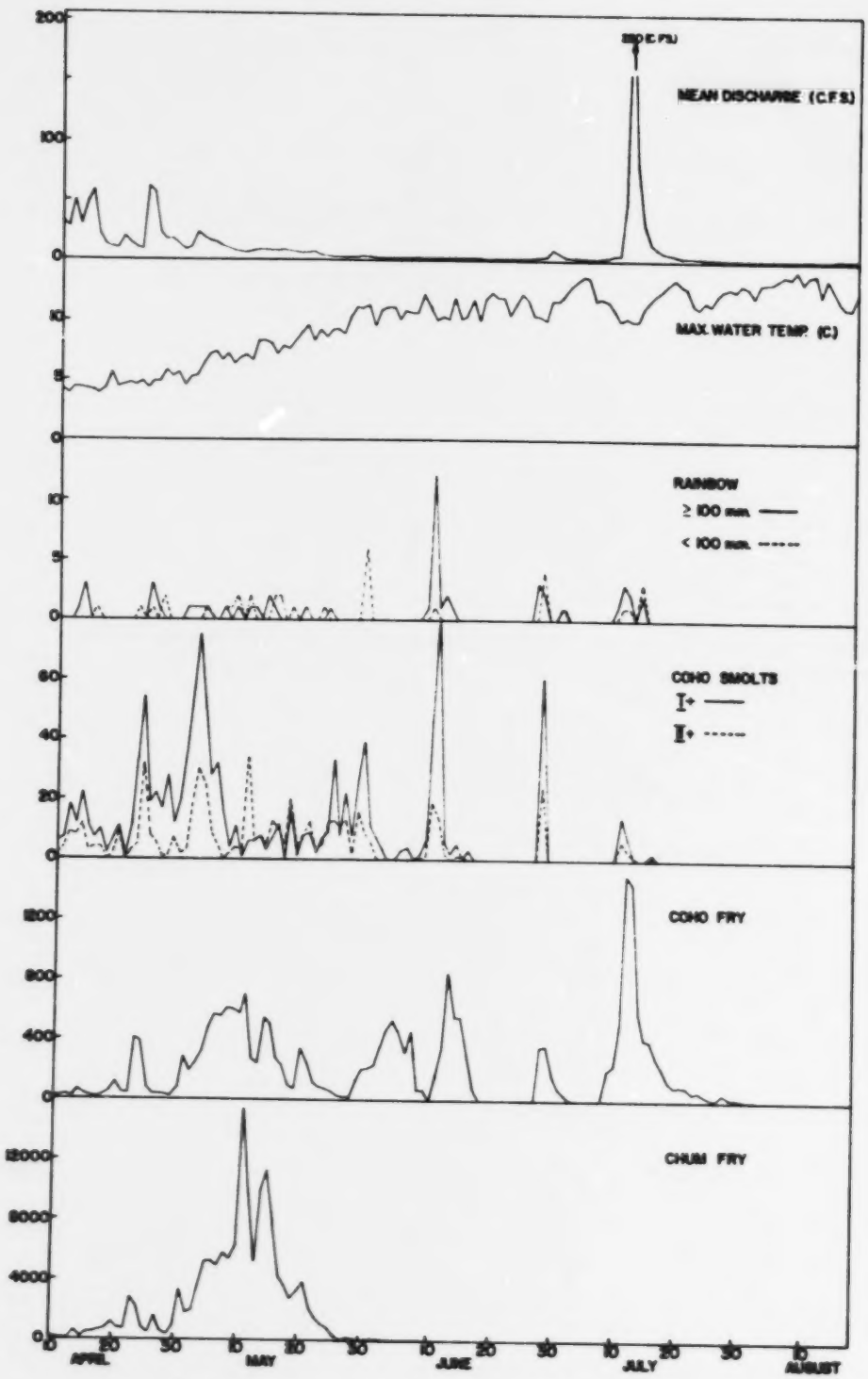
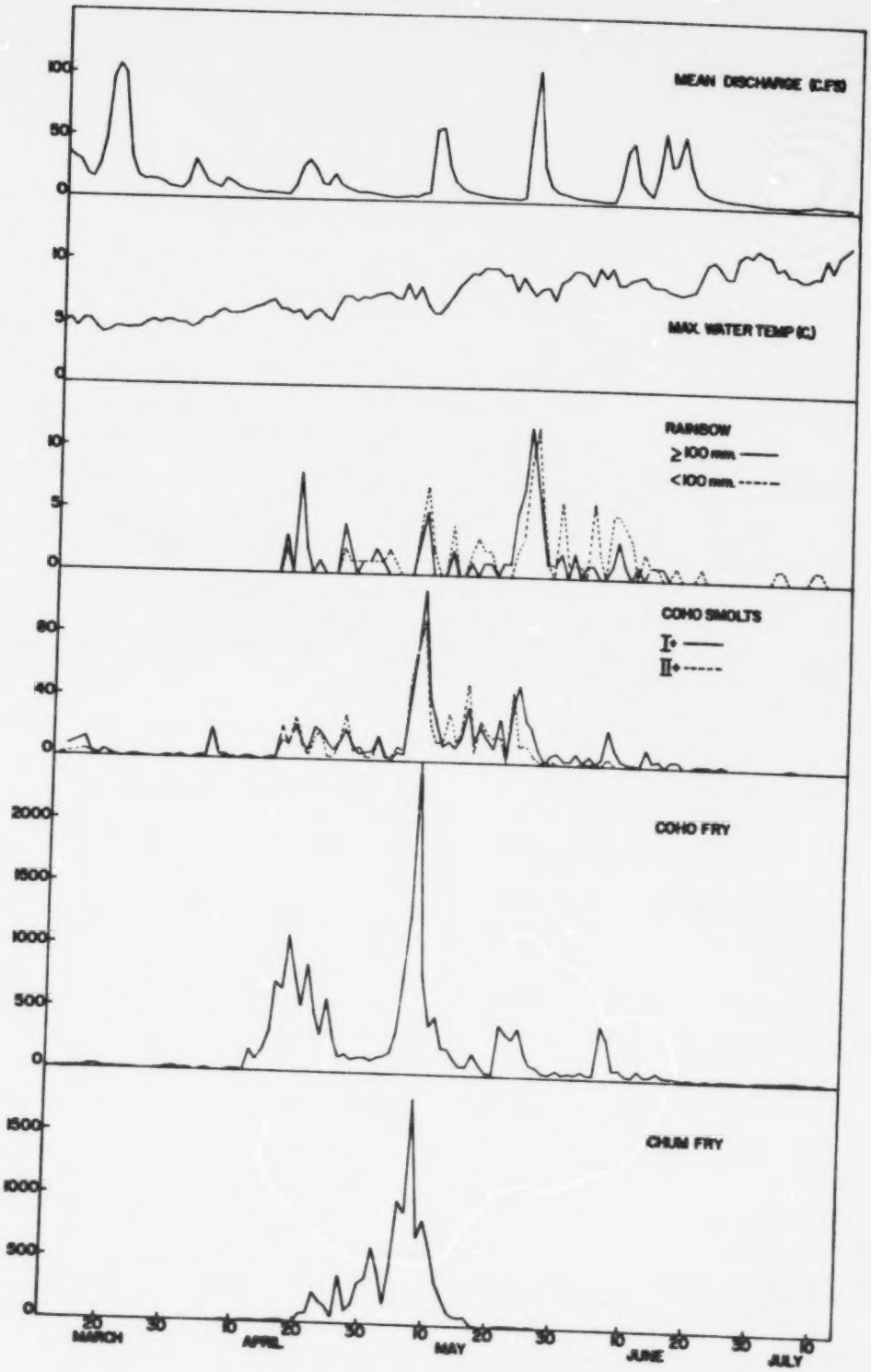

MEAN DISCHARGE (C.F.S.)
MAX. WATER TEMP. (C)
RAINBOW
≥ 100 mm.
< 100 mm.
COHO SMOLTS
I+
II+
COHO FRY
CHUM FRY
APRIL
MAY
JUNE
JULY
AUGUST

Fig. 5. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1973.


MEAN DISCHARGE (C.F.S)
100
50
0
MAX. WATER TEMP (C)
10
5
0
RAINBOW
≥100 mm
<100 mm
10
5
0
COHO SMOLTS
I+
II+
80
40
0
COHO FRY
2000
1500
1000
500
0
CHUM FRY
1500
1000
500
0
20
MARCH
30
10
APRIL
20
30
10
MAY
20
30
10
JUNE
20
30
10
JULY

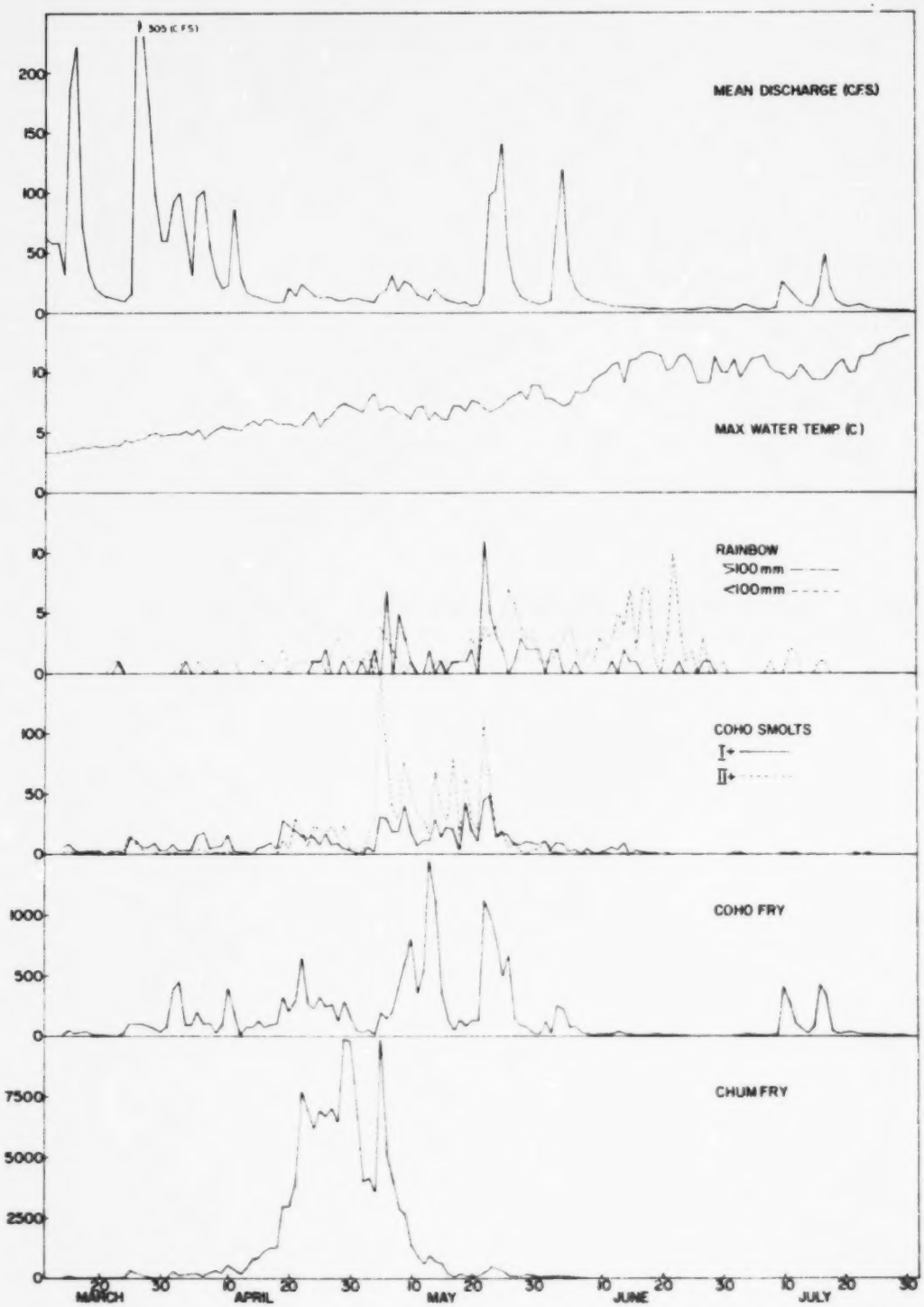


Fig. 6. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1974.

Fig. 7. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature, and discharge, 1975.

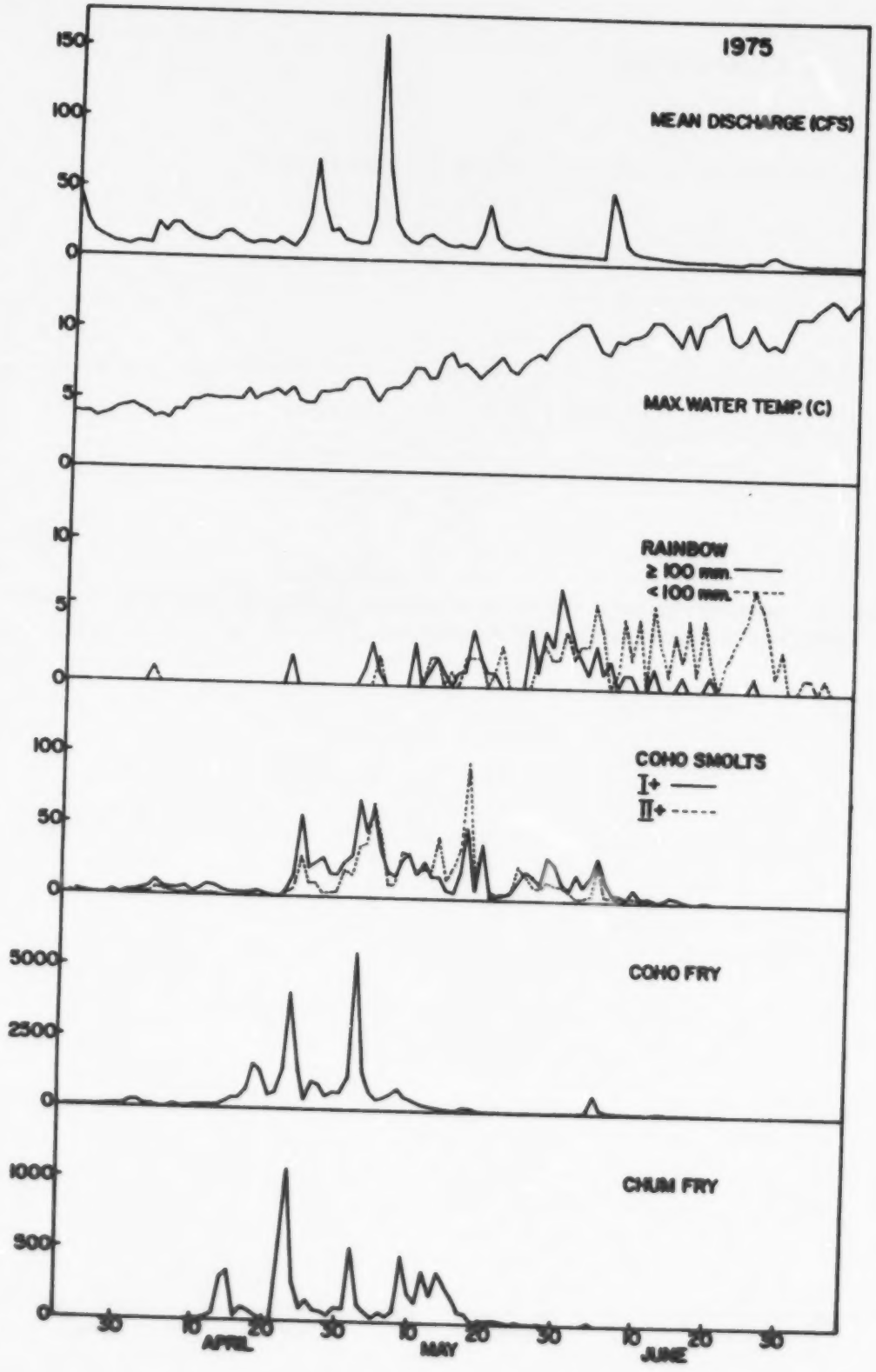

1975
MEAN DISCHARGE (CFS)
150
100
50
0
MAX. WATER TEMP. (C)
10
5
0
RAINBOW
≥ 100 mm.
< 100 mm.
10
5
0
COHO SMOLTS
I+
II+
100
50
0
COHO FRY
5000
2500
0
CHUM FRY
1000
500
0
30
10
20
30
10
20
30
10
20
30
APRIL
MAY
JUNE

Fig. 8. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature, and discharge, 1976.

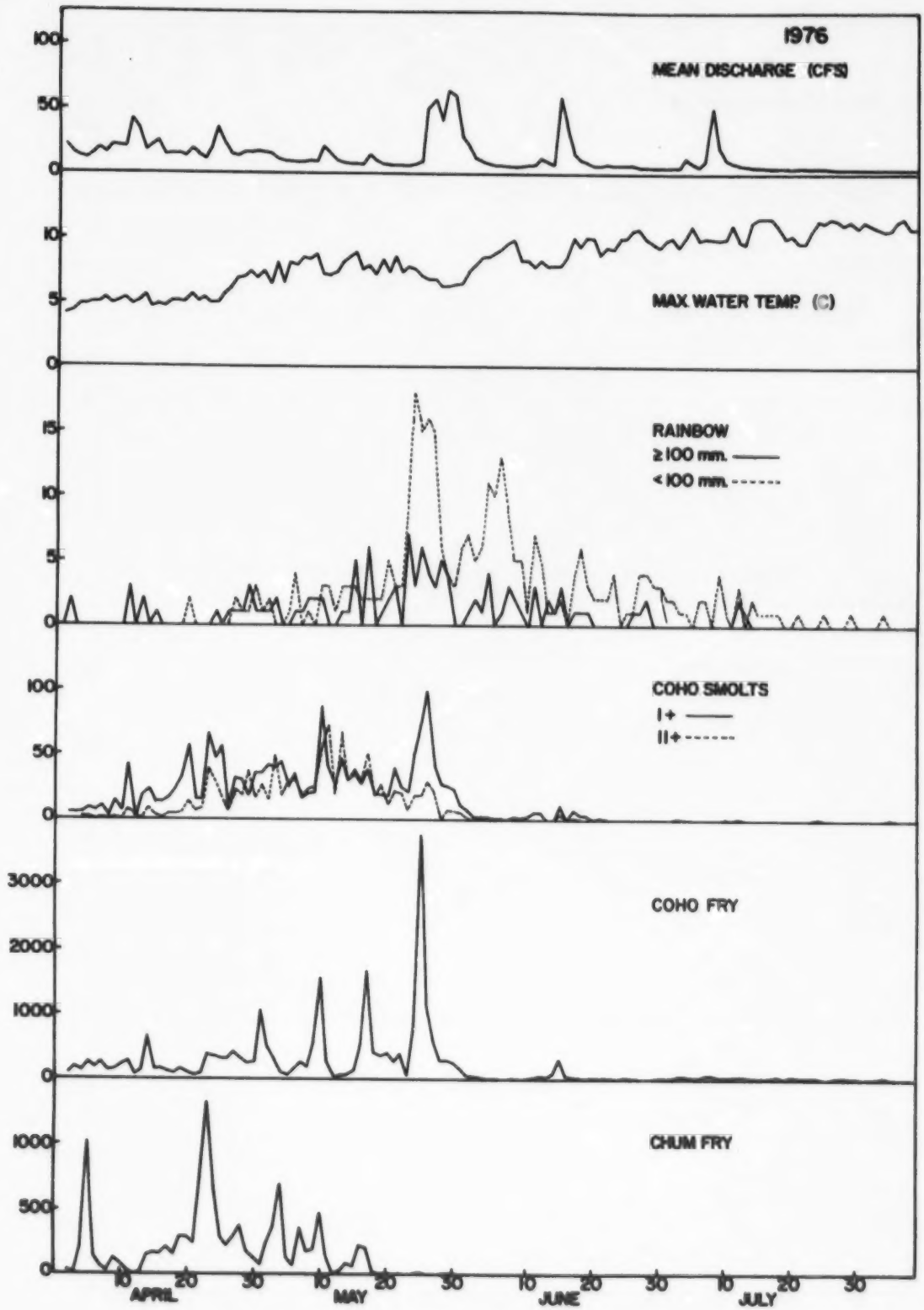
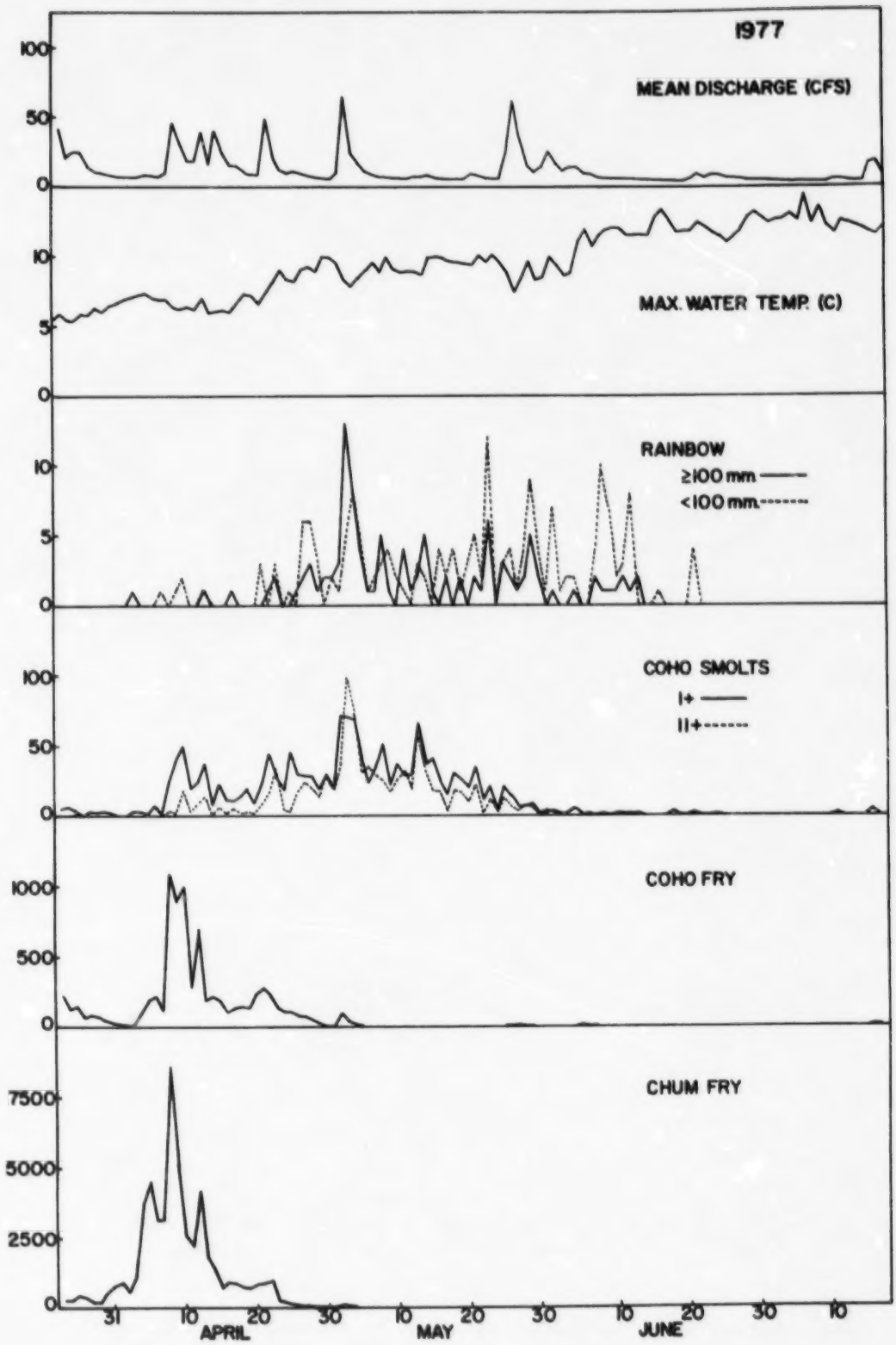

1976
MEAN DISCHARGE (CFS)
100
50
0
MAX. WATER TEMP. (C)
10
5
0
RAINBOW
≥ 100 mm.
< 100 mm.
15
10
5
0
COHO SMOLTS
I+
II+
100
50
0
COHO FRY
3000
2000
1000
0
CHUM FRY
1000
500
0
10
20
30
APRIL
10
20
30
MAY
10
20
30
JUNE
10
20
30
JULY

Fig. 9. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature, and discharge, 1977.


1977
MEAN DISCHARGE (CFS)
100
50
0
MAX. WATER TEMP. (C)
10
5
0
RAINBOW
≥100 mm
<100 mm
10
5
0
COHO SMOLTS
1+
11+
100
50
0
COHO FRY
1000
500
0
CHUM FRY
7500
5000
2500
0
31
10
20
30
10
20
30
10
20
30
10
APRIL
MAY
JUNE

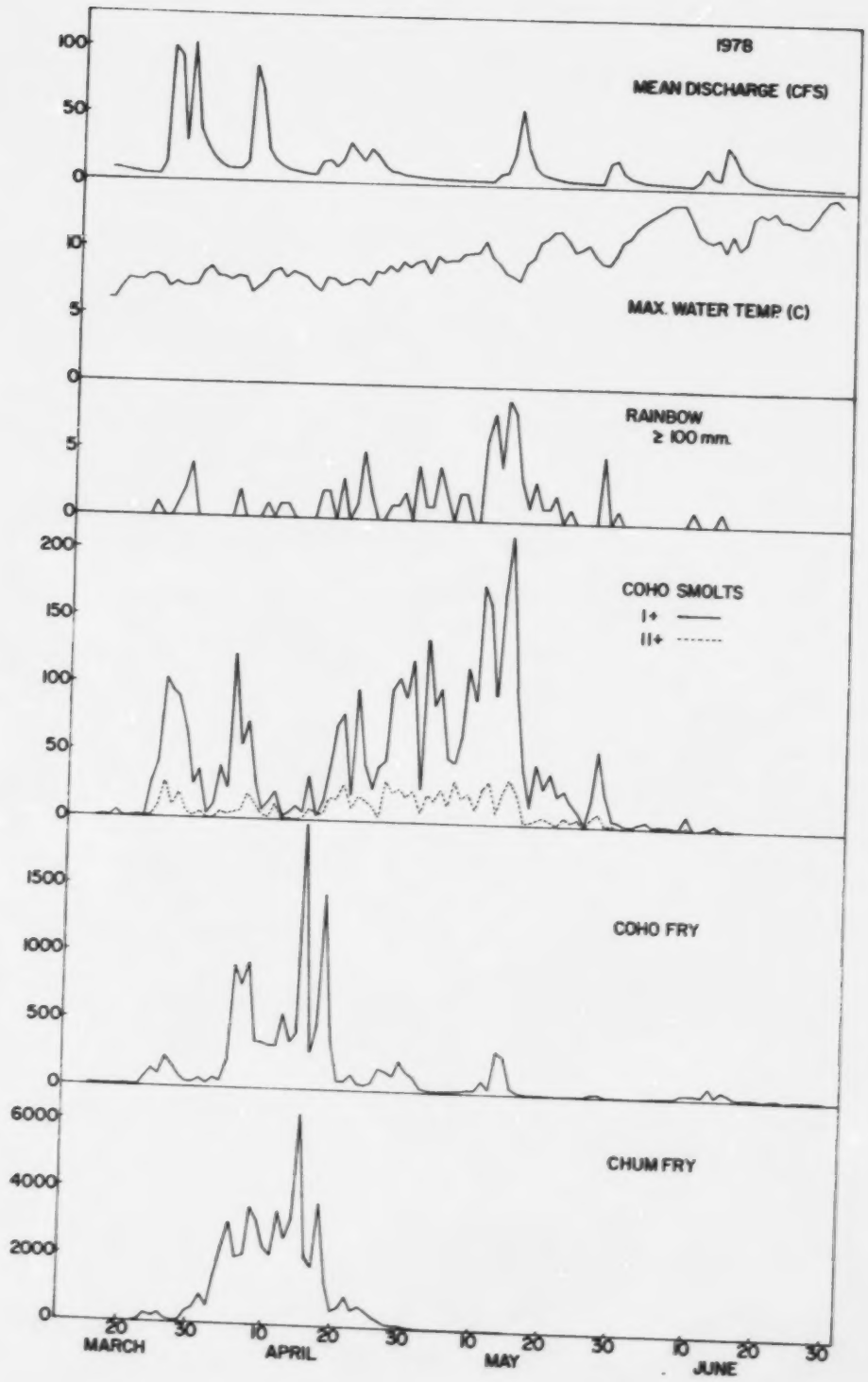


Fig. 10. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1978.

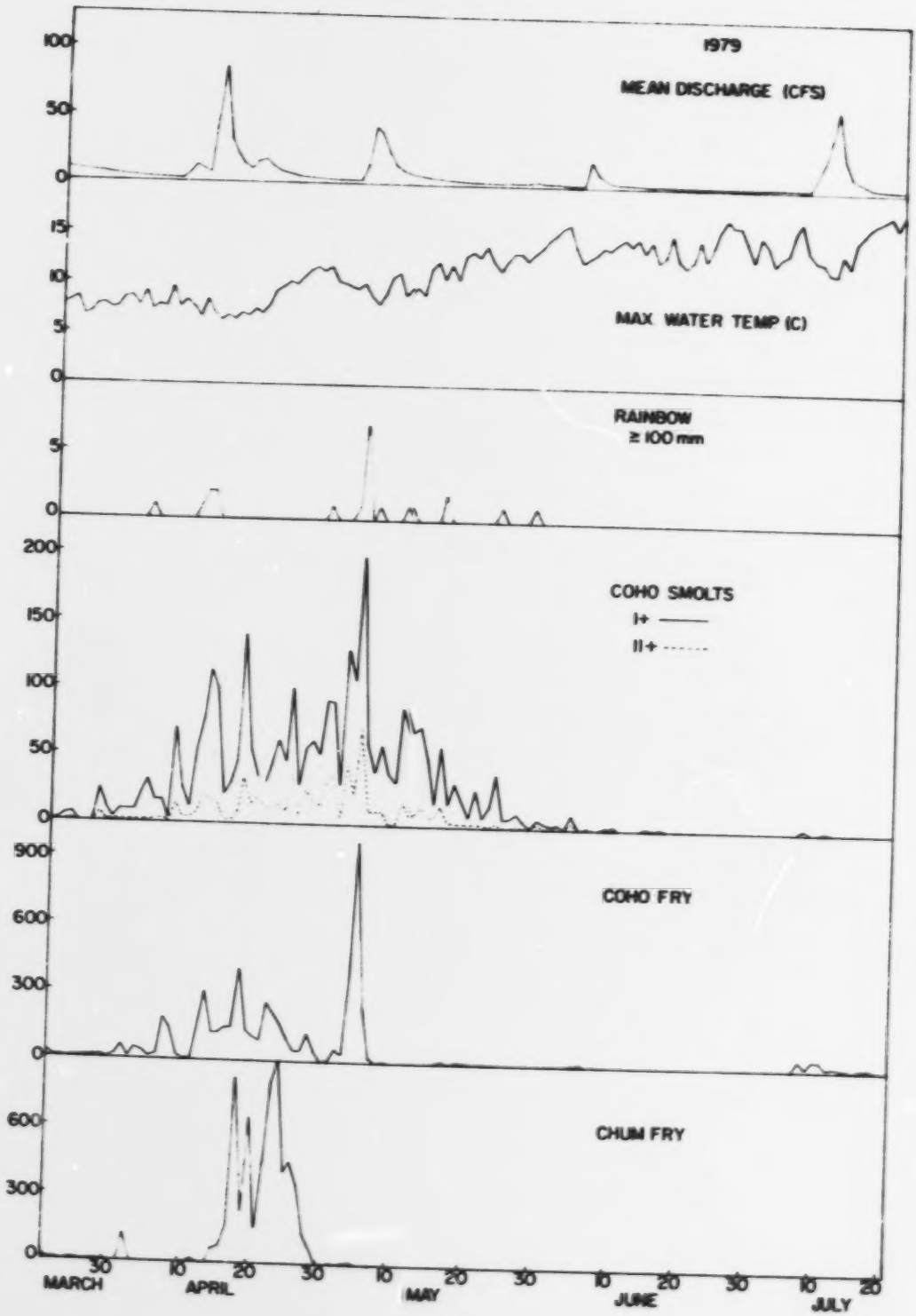


Fig. 11. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature, and discharge, 1979.

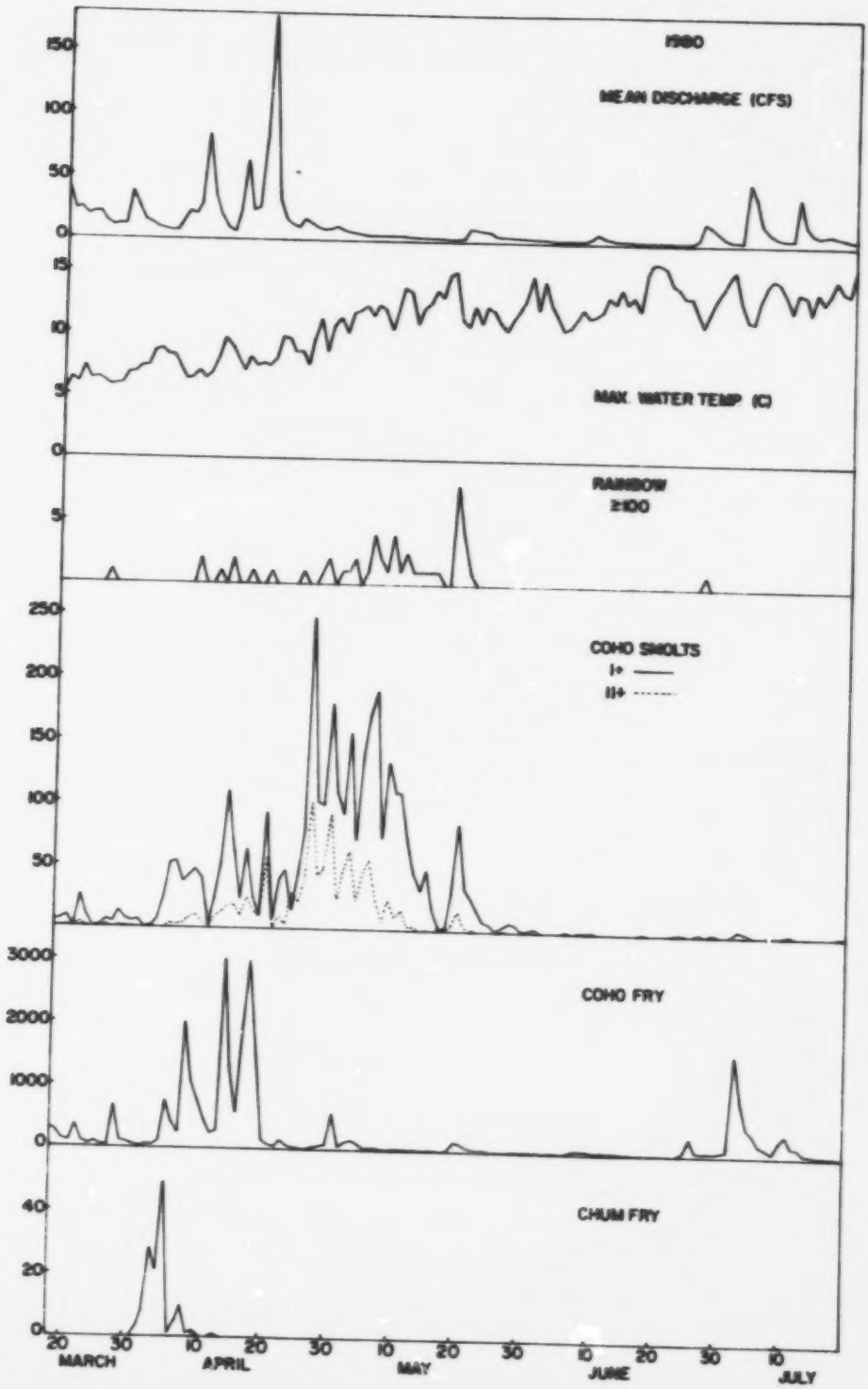


Fig. 12. Outmigration of juvenile salmonids in Carnation Creek in relation to date, water temperature and discharge, 1980.

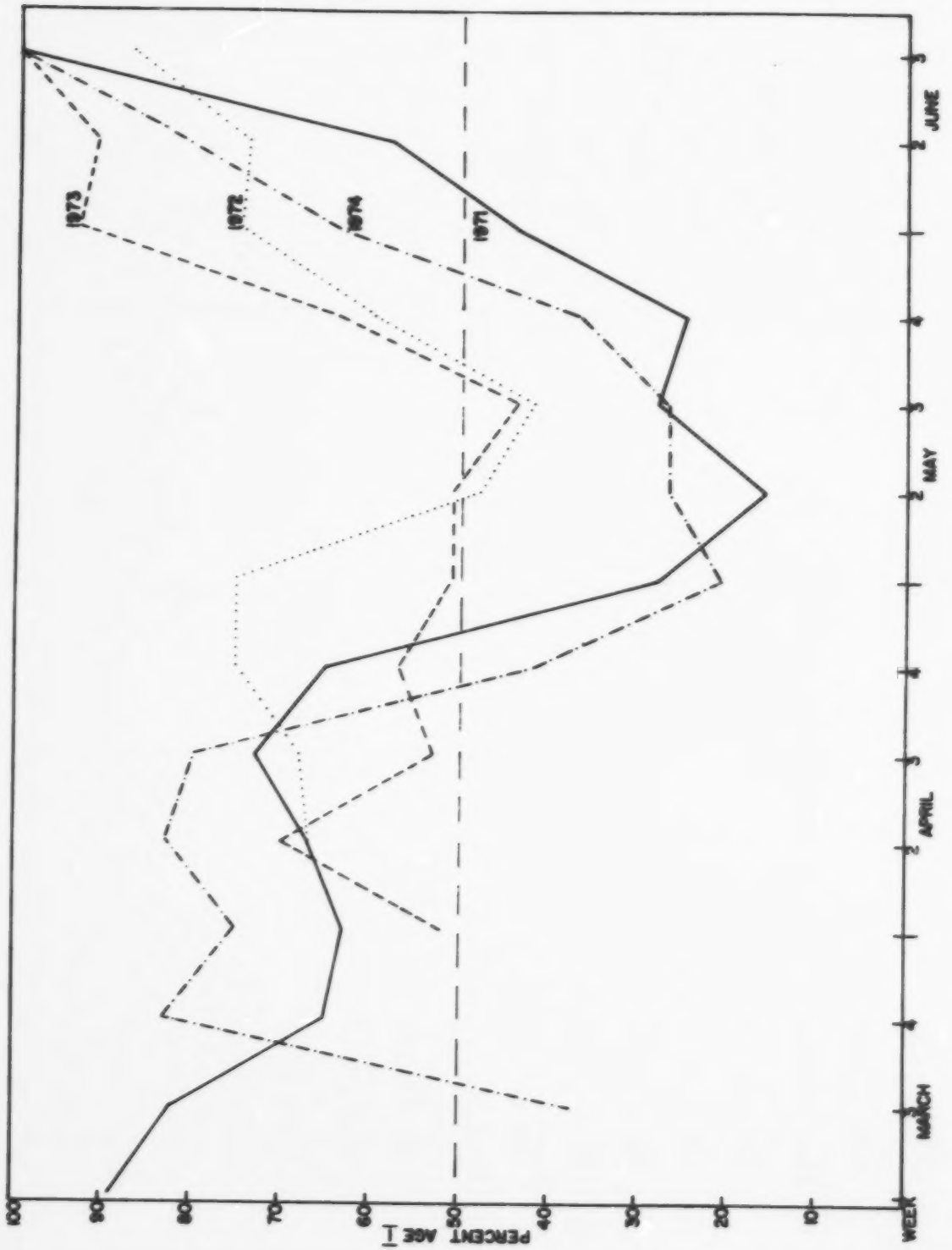


Fig. 13. Percentage of age I fish in the total coho smolt outmigration in Carnation Creek in 1971 to 1974.

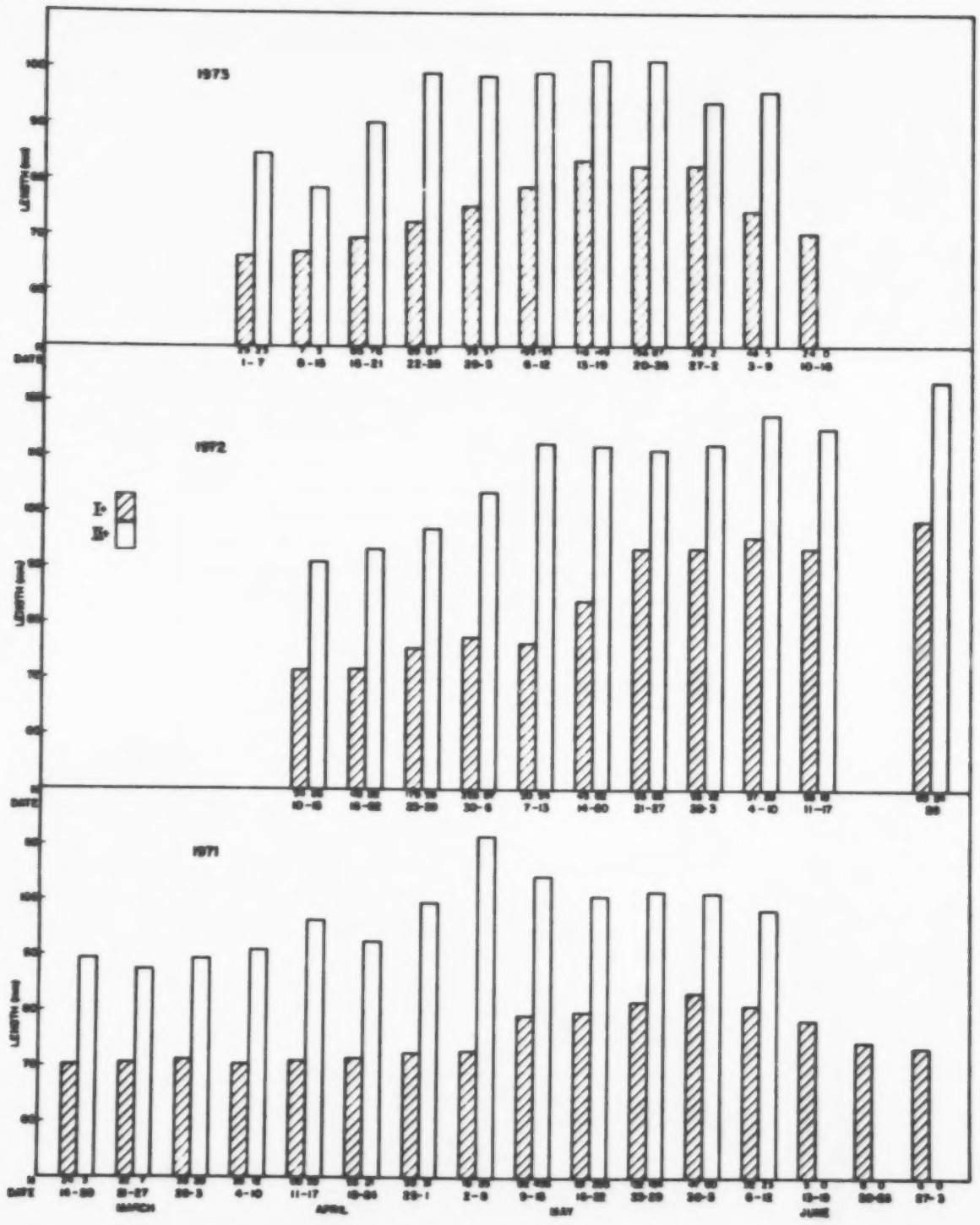


Fig. 14. Weekly mean lengths of age I and II coho smolts (> 59 mm) leaving Carnation Creek in 1971-73.

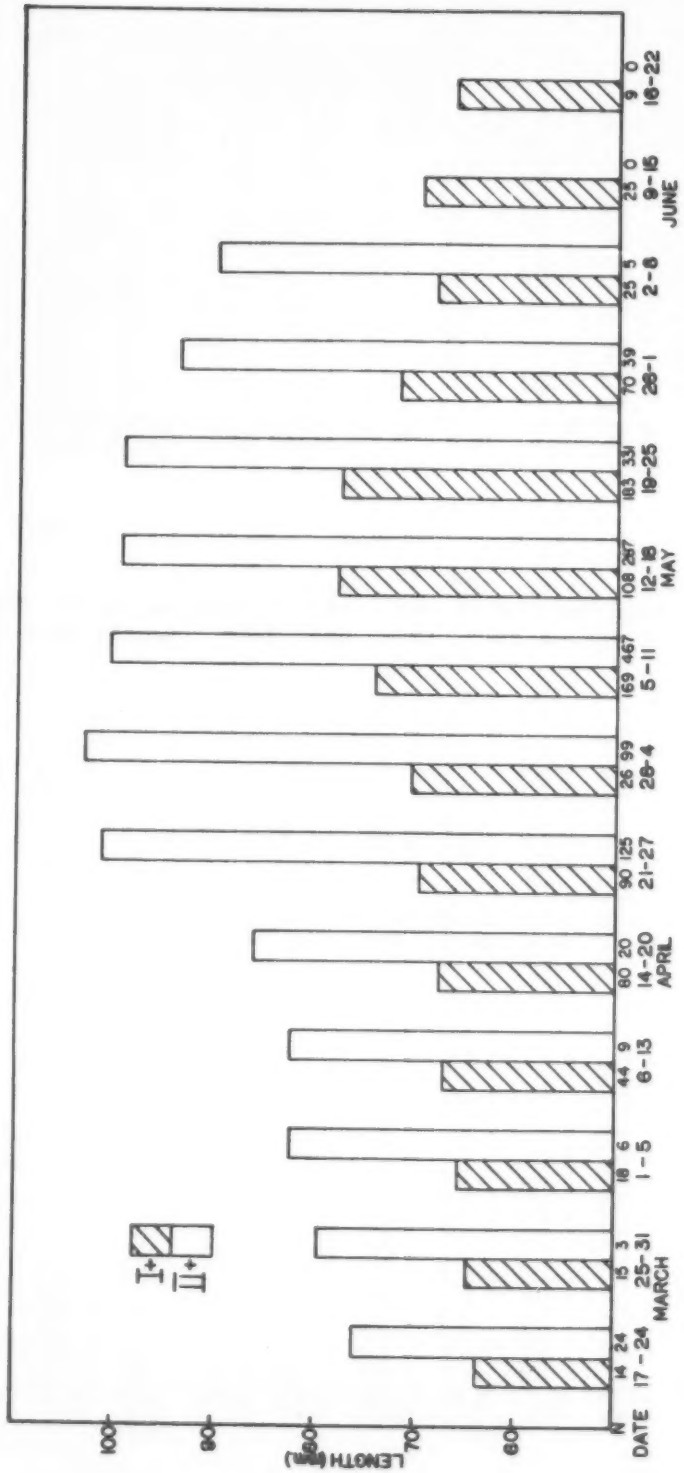
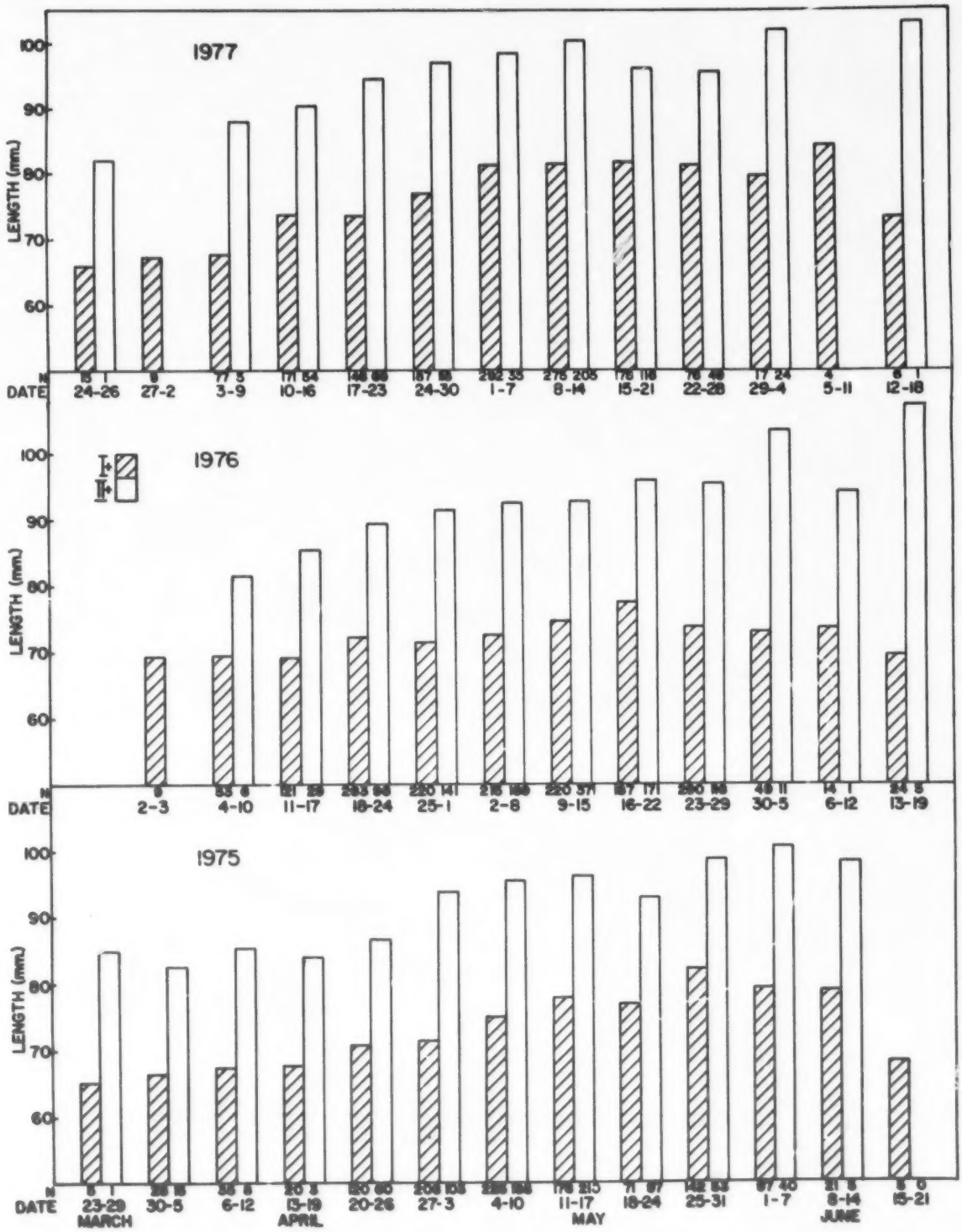


Fig. 15. Weekly mean lengths of age I and II coho smolts (> 59 mm) leaving Carnation Creek in 1974. (Sample size under bars.)

Fig. 16. Weekly mean lengths of age I and II coho smolts (> 59 mm) leaving Carnation Creek in 1975, 1976, and 1977. (Sample size under bars.)


1977
1976
1975
LENGTH (mm)
100
90
80
70
60
N
DATE
15 1
24-26
9
27-2
77 5
3-9
171 54
10-16
148 66
17-23
187 85
24-30
282 33
1-7
276 205
8-14
178 118
15-21
78 48
22-28
17 24
29-4
4
5-11
8 1
12-18
I
II
9
2-3
53 6
4-10
121 29
11-17
283 58
18-24
220 141
25-1
215 188
2-8
220 371
9-15
187 171
16-22
250 98
23-29
48 11
30-5
14 1
6-12
24 5
13-19
5 1
23-29
MARCH
28 15
30-5
35 6
6-12
20 3
13-19
APRIL
120 60
20-26
208 108
27-3
288 188
4-10
178 215
11-17
MAY
71 87
18-24
148 83
25-31
87 40
1-7
21 5
8-14
JUNE
5 0
15-21

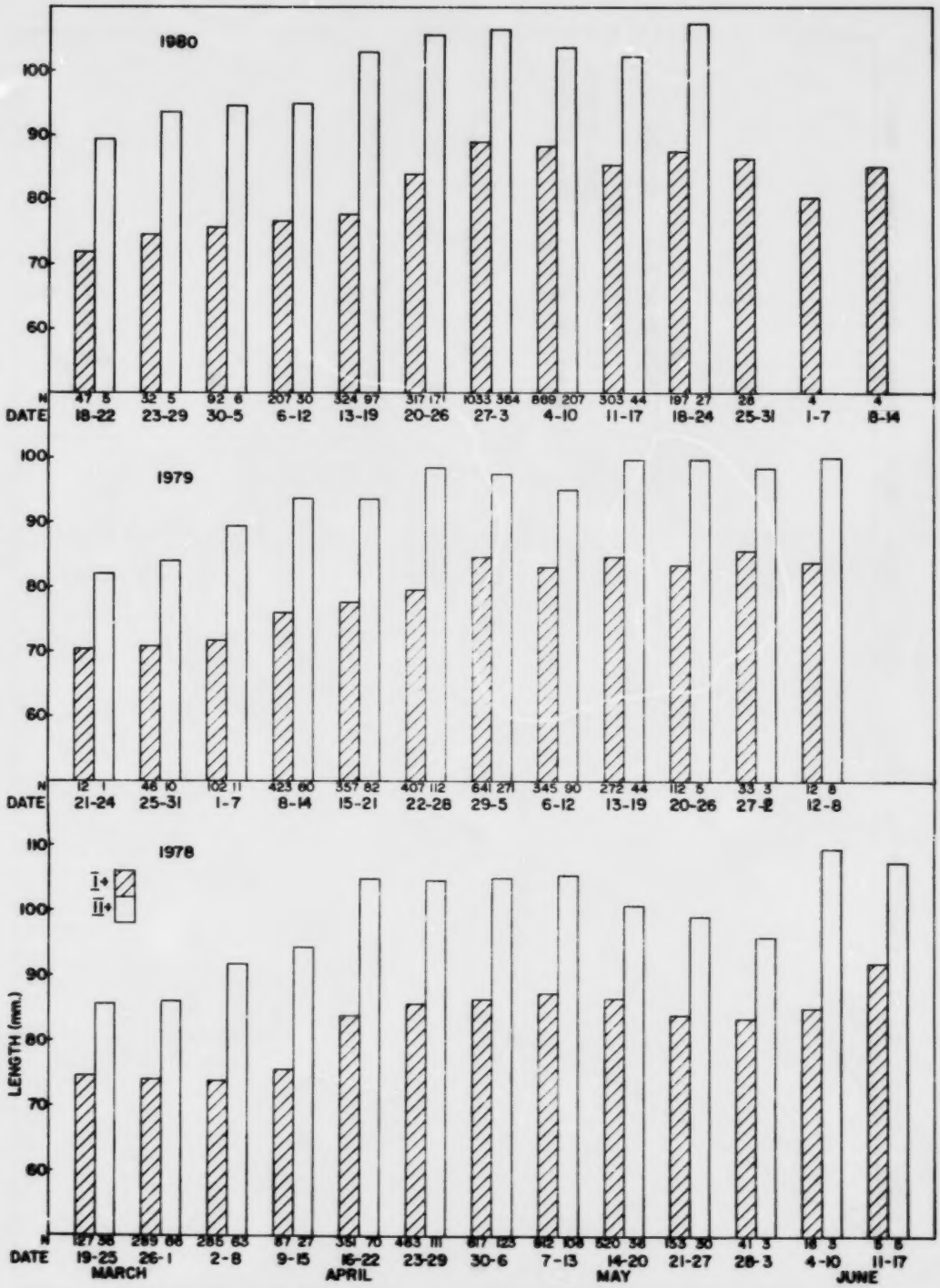


Fig. 17. Weekly mean lengths of age I and II coho smolts (> 59 mm) leaving Carnation Creek in 1978, 1979 and 1980. (Sample size under bars.)

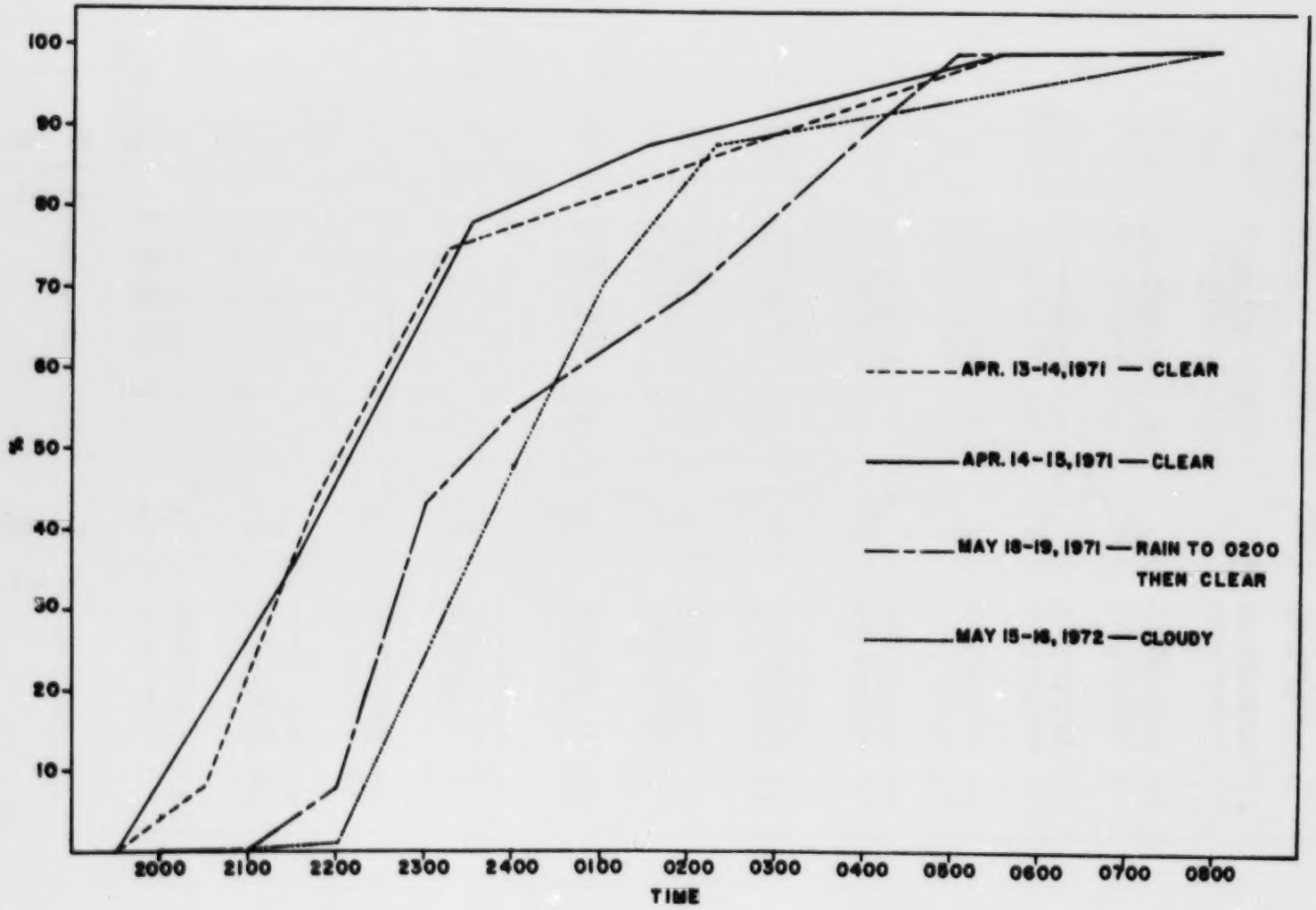


Fig. 18. Accumulative chum fry catches in percent for 4 complete nights of downstream trapping in Carnation Creek.

Appendix table I. Carnation Creek coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 6-8/70																
II	0	690.7	188.4	150	53	60	3	824	126737.0	111.5	1535.5	1.84	51.0	0.84	0.23	0.61
	I				11	7	1	48	576.0	0.0	96.0	7.00	75.8	14.39	3.92	10.46
III	0	689.8	205.1	150	123	64	5	1343	233996.0	375.9	2310.8	1.84	51.0	0.51	0.15	0.36
	I				7	4	1	20	80.0	2.1	37.9	7.00	75.8	34.49	10.26	24.23
VI	0	398.6	121.0	150	88	116	15	651	21507.9	357.5	944.1	1.57	47.9	0.61	0.19	0.43
	I				9	6	1	35	291.7	0.8	69.2	7.00	75.8	11.39	3.46	7.93
VIII	0	666.5	378.9	160	64	107	12	540	18321.4	269.3	810.7	1.67	48.4	1.23	0.70	0.53
	I				6	7	2	19	54.4	3.9	33.4	7.00	75.8	35.71	20.30	15.41
ALL	0	2445.6	893.4	610	328	347	35	3180	245086.0	2190.2	4170.5	1.76	50.0	0.77	0.28	0.49
	I				33	24	5	142	2179.0	48.3	235.0	7.00	75.8	17.26	6.31	10.96

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 6-8/70														
II	0	1.19	4825.1	4.37	17689.5	1.64	6634.9	1515.2	2.19	19.57	8.04	71.74	3.02	26.91
	I	0.07	281.2	0.25	1031.1	0.10	386.7	336.0	0.49	4.34	1.78	15.91	0.67	5.97
III	0	1.95	7881.2	6.55	26506.4	2.77	11216.2	2471.7	3.58	31.96	12.05	107.50	5.10	45.49
	I	0.03	117.3	0.10	394.6	0.04	167.0	140.0	0.20	1.81	0.68	6.09	0.29	2.58
VI	0	1.63	6607.7	5.38	21767.3	2.34	9487.9	1021.8	2.56	22.87	8.44	75.32	3.68	32.83
	I	0.09	355.4	0.29	1170.6	0.13	510.2	245.0	0.61	5.48	2.02	18.06	0.88	7.87
VIII	0	0.81	3278.9	1.43	5767.7	1.88	7598.7	901.8	1.35	12.07	2.38	21.23	3.14	27.97
	I	0.03	113.3	0.05	199.4	0.06	262.7	130.7	0.20	1.75	0.34	3.08	0.45	4.05
ALL	0	1.30	5262.8	3.56	14406.5	2.05	8292.0	5598.4	2.29	20.42	6.27	55.90	3.61	32.17
	I	0.06	234.4	0.16	641.7	0.09	369.4	991.7	0.41	3.62	1.11	9.90	0.64	5.70

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 14-16/70																
II	0	647.3	188.4	150	106	91	15	615	18394.2	344.0	886.5	2.34	54.4	1.05	0.31	0.75
	I				17	6	2	42	252.0	10.3	73.7	6.35	77.7	15.41	4.49	10.93
III	0	646.4	205.1	150	145	156	27	819	18988.1	543.0	1094.2	2.22	54.5	0.79	0.25	0.54
	I				8	9	1	45	540.0	-1.5	91.5	7.40	80.6	14.36	4.56	9.81
VI	0	371.5	121.0	150	121	101	17	691	20715.7	403.5	979.2	1.89	50.6	0.54	0.18	0.36
	I				11	10	3	33	138.6	9.5	56.5	6.60	79.1	11.26	3.67	7.59
VIII	0	624.6	378.9	160	148	131	29	656	10713.8	448.6	862.6	1.76	50.3	0.95	0.58	0.37
	I				5	4	1	15	45.0	1.6	28.4	6.20	76.7	41.64	25.26	16.38
ALL	0	2289.8	893.4	610	520	479	88	2810	71461.3	2275.2	3344.5	2.06	52.5	0.81	0.32	0.50
	I				41	29	7	158	2021.3	67.6	247.4	6.74	78.9	14.54	5.67	8.87

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 14-16/70														
II	0	0.95	3846.6	3.27	13216.1	1.34	5425.8	1439.7	2.22	19.84	7.64	68.16	3.14	27.98
	I	0.06	262.6	0.22	902.2	0.09	370.4	266.7	0.41	3.68	1.42	12.63	0.58	5.18
III	0	1.27	5125.4	3.99	16153.3	1.86	7507.5	1817.4	2.81	25.08	8.86	79.04	4.12	36.73
	I	0.07	281.7	0.22	887.9	0.10	412.7	333.0	0.52	4.60	1.62	14.48	0.75	6.73
VI	0	1.86	7531.2	5.71	23122.5	2.76	11169.0	1306.6	3.52	31.37	10.80	96.32	5.22	46.53
	I	0.09	359.5	0.27	1103.7	0.13	533.1	217.8	0.59	5.23	1.80	16.06	0.87	7.76
VIII	0	1.05	4247.9	1.73	7002.4	2.67	10798.6	1153.9	1.85	16.48	3.05	27.16	4.70	41.89
	I	0.02	97.2	0.04	160.2	0.06	247.1	93.0	0.15	1.33	0.25	2.19	0.38	3.38
ALL	0	1.23	4966.2	3.15	12728.5	2.01	8143.5	5777.3	2.52	22.51	6.47	57.68	4.14	36.90
	I	0.07	278.4	0.18	713.5	0.11	456.5	1062.3	0.46	4.14	1.19	10.61	0.76	6.79

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 16/71																
II	0	486.0	59.0	100	572	774	421	1052	1192.4	983.2	1121.4	0.70	40.0	0.46	0.06	0.41
	I				8	16	6	22	35.1	10.0	33.7	4.33	65.8	22.24	2.70	19.54
III	0	407.0	19.0	85	530	577	243	1258	3731.8	1135.7	1380.0	0.70	40.0	0.32	0.02	0.31
	I				5	14	0	90	3780.0	-33.0	213.0	4.33	65.8	4.52	0.21	4.31
IV	0	582.0	47.0	100	725	957	433	1603	3229.2	1488.9	1716.2	0.70	40.0	0.36	0.03	0.33
	I				8	7	1	36	324.0	0.0	72.0	4.33	65.8	16.17	1.31	14.86
VI	0	324.0	46.0	110	486	694	232	1453	5994.6	1297.8	1607.5	0.70	40.0	0.22	0.03	0.19
	I				3	5	1	12	32.0	0.7	23.3	4.33	65.8	27.00	3.83	23.17
VIII	0	329.0	78.0	90	289	249	117	614	1674.9	532.6	696.3	0.70	40.0	0.54	0.13	0.41
	I				4	7	3	10	10.0	3.7	16.3	4.33	65.8	32.90	7.80	25.10
ALL	0	2128.0	249.0	485	2602	3251	1446	5850	13118.1	5620.9	6079.1	0.70	40.0	0.36	0.04	0.32
	I				28	49	11	121	853.6	62.4	179.3	4.33	65.8	17.61	2.06	15.55

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 16/71														
II	0	2.17	8762.8	17.84	72181.4	2.46	9973.5	736.6	1.52	13.52	12.49	111.37	1.73	15.39
	I	0.04	182.0	0.37	1499.3	0.05	207.2	94.6	0.19	1.74	1.60	14.31	0.22	1.98
III	0	3.09	12507.5	66.20	267924.0	3.24	13120.0	880.5	2.16	19.30	46.34	413.37	2.27	20.24
	I	0.22	894.9	4.74	19170.0	0.23	938.7	389.7	0.96	8.54	20.51	182.95	1.00	8.96
IV	0	2.75	11143.5	34.10	137990.0	3.00	12122.5	1121.8	1.93	17.19	23.87	212.90	2.10	18.70
	I	0.06	250.3	0.77	3099.8	0.07	272.3	155.9	0.27	2.38	3.32	29.58	0.29	2.60
VI	0	4.48	18144.5	31.58	127801.0	5.23	21146.9	1016.8	3.14	27.98	22.11	197.18	3.66	32.63
	I	0.04	149.9	0.26	1055.7	0.04	174.7	52.0	0.16	1.43	1.13	10.08	0.19	1.67
VIII	0	1.87	7557.8	7.88	31878.3	2.45	9906.4	430.1	1.31	11.66	5.51	49.18	1.71	15.28
	I	0.03	123.0	0.13	518.8	0.04	161.2	43.3	0.13	1.17	0.56	4.95	0.17	1.54
ALL	0	2.75	11125.5	23.49	95080.2	3.11	12599.8	4085.0	1.92	17.17	16.45	146.70	2.18	19.44
	I	0.06	229.8	0.49	1963.9	0.06	260.3	523.2	0.25	2.19	2.10	18.74	0.28	2.48

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 4/71																
II	0	877.0	116.0	170	245	251	27	2214	150247.0	1438.8	2989.2	1.35	47.4	0.40	0.05	0.34
	I				23	16	6	58	249.8	26.7	89.9	5.85	73.1	15.05	1.99	13.06
III	0	608.0	45.0	125	172	208	33	1063	27055.2	734.5	1392.4	1.35	47.4	0.57	0.04	0.53
	I				7	18	2	51	540.4	4.2	97.2	5.85	73.1	12.00	0.89	11.11
IV	0	580.0	47.0	100	147	149	27	793	17630.3	527.3	1058.4	1.35	47.4	0.73	0.06	0.67
	I				9	14	2	50	500.0	5.3	94.7	5.85	73.1	11.60	0.94	10.66
VI	0	372.0	46.0	130	152	188	16	1701	146286.0	936.1	2465.9	1.35	47.4	0.22	0.03	0.19
	I				8	9	1	45	540.0	-1.5	91.5	5.85	73.1	8.27	1.02	7.24
VIII	0	367.0	107.0	115	141	203	37	762	12125.0	542.1	982.5	1.35	47.4	0.48	0.14	0.34
	I				11	9	2	40	280.0	6.5	73.5	5.85	73.1	9.18	2.67	6.50
ALL	0	2804.0	361.0	640	857	999	140	6085	223996.0	5138.5	7031.7	1.35	47.4	0.46	0.06	0.40
	I				58	66	13	282	4204.4	152.7	412.0	5.85	73.1	9.93	1.28	8.65

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 4/71														
II	0	2.52	10216.7	19.09	77241.9	2.91	11774.1	2988.9	3.41	30.40	25.77	229.84	3.93	35.03
	I	0.07	269.0	0.50	2033.5	0.08	310.0	341.0	0.39	3.47	2.94	26.22	0.45	4.00
III	0	1.75	7078.5	23.63	95638.8	1.89	7644.3	1435.6	2.36	21.06	31.80	284.58	2.55	22.76
	I	0.08	337.3	1.13	4556.6	0.09	364.2	296.4	0.49	4.35	6.59	58.75	0.53	4.70
IV	0	1.37	5532.2	16.87	68270.1	1.49	6020.1	1070.4	1.85	16.46	22.77	203.14	2.01	17.91
	I	0.09	348.9	1.06	4305.3	0.09	379.6	292.5	0.50	4.50	6.22	55.51	0.55	4.90
VI	0	4.57	18505.2	36.98	149651.0	5.22	21116.4	2296.4	6.17	55.06	49.92	445.29	7.04	62.83
	I	0.12	489.6	0.98	3959.0	0.14	558.6	263.3	0.71	6.31	5.72	51.05	0.81	7.20
VIII	0	2.08	8406.2	7.12	28832.6	2.93	11865.7	1029.1	2.80	25.01	9.62	85.79	3.96	35.31
	I	0.11	441.1	0.37	1512.9	0.15	622.6	234.0	0.64	5.69	2.19	19.51	0.90	8.03
ALL	0	2.17	8782.6	16.86	68217.3	2.49	10080.4	8214.9	2.93	26.13	22.76	202.98	3.36	29.98
	I	0.10	407.5	0.78	3165.4	0.12	467.7	1651.8	0.59	5.25	4.58	40.81	0.68	6.03

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 15-16/71																
II	0	861.2	116.3	170	147	138	20	980	37030.4	594.8	1364.5	1.41	48.1	0.88	0.12	0.76
	I				22	17	2	138	3967.5	12.0	264.0	6.66	77.4	6.24	0.84	5.40
III	0	607.5	44.7	125	103	104	21	496	8467.6	312.3	680.4	1.41	48.1	1.22	0.09	1.13
	I				15	19	4	64	512.0	18.7	109.3	6.66	77.4	9.49	0.70	8.79
IV	0	579.7	46.8	100	90	41	14	255	2608.5	152.7	356.9	1.41	48.1	2.28	0.18	2.09
	I				13	9	4	28	65.3	11.8	44.2	6.66	77.4	20.70	1.67	19.03
VI	0	371.8	45.8	130	79	57	12	357	7060.0	188.9	525.0	1.41	48.1	1.04	0.13	0.91
	I				10	4	2	18	33.6	6.7	29.9	6.66	77.4	20.28	2.50	17.78
VIII	0	367.4	107.0	115	84	80	18	362	5025.5	220.6	504.1	1.41	48.1	1.01	0.30	0.72
	I				6	2	0	21	147.0	-3.2	45.2	6.66	77.4	17.50	5.10	12.40
ALL	0	2787.6	360.6	640	503	420	85	2467	55676.5	1995.3	2939.2	1.41	48.1	1.13	0.15	0.98
	I				66	51	12	268	3847.7	143.9	392.1	6.66	77.4	10.40	1.35	9.06

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 15-16/71														
II	0	1.14	4603.5	8.42	34068.7	1.32	5322.2	1381.3	1.60	14.31	11.88	105.94	1.85	16.54
	I	0.16	648.5	1.19	4802.1	0.19	749.7	919.1	1.07	9.52	7.90	70.49	1.23	11.01
III	0	0.82	3306.6	11.10	44939.2	0.88	3569.3	699.9	1.15	10.28	15.66	139.66	1.24	11.09
	I	0.11	426.4	1.43	5794.4	0.11	460.2	426.2	0.70	6.26	9.54	85.06	0.76	6.76
IV	0	0.44	1778.8	5.44	22033.7	0.48	1935.0	359.3	0.62	5.53	7.68	68.48	0.67	6.01
	I	0.05	195.5	0.60	2421.3	0.05	212.6	186.5	0.32	2.87	3.98	35.54	0.35	3.12
VI	0	0.96	3885.1	7.79	31538.6	1.09	4430.9	503.3	1.35	12.07	10.99	98.02	1.54	13.77
	I	0.05	199.6	0.40	1620.0	0.06	227.6	122.1	0.33	2.93	2.67	23.78	0.37	3.34
VIII	0	0.99	3991.6	3.39	13705.7	1.39	5631.7	510.9	1.39	12.40	4.78	42.59	1.96	17.50
	I	0.06	231.3	0.20	794.3	0.08	326.4	139.8	0.38	3.40	1.31	11.66	0.54	4.79
ALL	0	0.89	3581.9	6.84	27689.9	1.02	4114.1	3478.8	1.25	11.13	9.65	86.05	1.43	12.79
	I	0.10	389.1	0.74	3007.8	0.11	446.9	1784.9	0.64	5.71	4.95	44.15	0.74	6.56

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 24-25/72																
II	0	327.8	17.4	57	284	155	625	3071.9	514.4	736.1	0.45	0.60	38.4	0.52	0.03	0.50
	I				3	0	3	0.0	3.0	3.0	1.00	3.43	61.1	109.27	5.80	103.47
III	0	451.9	46.6	69	378	146	616	550.9	568.9	662.8	0.61	0.60	38.4	0.73	0.06	0.66
	I				14	1	15	0.1	14.4	15.7	0.93	3.43	61.1	29.97	3.09	26.88
IV	0	521.0	55.8	82	338	278	1904	419661.0	608.4	3199.7	0.18	0.61	38.5	0.27	0.03	0.24
	I				19	6	28	11.4	21.0	34.5	0.68	3.31	60.4	18.76	2.01	16.75
VI	0	602.2	34.0	113	301	209	985	28173.7	649.1	1320.5	0.31	0.54	37.2	0.61	0.03	0.58
	I				5	2	8	8.6	2.5	14.2	0.60	3.07	59.0	72.26	4.08	68.18
VIII	0	392.3	142.6	94	332	257	1470	135523.0	733.4	2205.9	0.23	0.58	37.9	0.27	0.10	0.17
	I				15	10	45	900.0	-15.0	105.0	0.33	2.79	57.2	8.72	3.17	5.55
ALL	0	2295.2	296.4	415	1633	1045	4535	65238.8	4024.3	5046.0	0.36	0.59	38.1	0.51	0.07	0.44
	I				56	19	85	45.3	71.3	88.2	0.66	3.14	59.4	27.08	3.50	23.58

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 24-25/72														
II	0	1.91	7719.2	35.93	145422.0	2.01	8151.9	375.1	1.14	10.21	21.56	192.32	1.21	10.78
	I	0.01	37.0	0.17	697.8	0.01	39.1	10.3	0.03	0.28	0.59	5.28	0.03	0.30
III	0	1.36	5515.5	13.22	53486.3	1.52	6149.7	369.5	0.82	7.29	7.93	70.73	0.91	8.13
	I	0.03	135.0	0.32	1309.4	0.04	150.5	51.7	0.11	1.02	1.11	9.90	0.13	1.14
IV	0	3.65	14790.3	34.12	138096.0	4.09	16564.4	1161.5	2.23	19.89	20.82	185.67	2.50	22.27
	I	0.05	215.7	0.50	2014.0	0.06	241.6	91.9	0.18	1.57	1.65	14.69	0.20	1.76
VI	0	1.64	6618.2	28.96	117219.0	1.73	7014.2	531.8	0.88	7.88	15.64	139.52	0.94	8.35
	I	0.01	56.0	0.25	991.9	0.01	59.4	25.6	0.04	0.38	0.75	6.71	0.05	0.40
VIII	0	3.75	15161.1	10.31	41708.9	5.89	23819.3	852.4	2.17	19.38	5.98	53.32	3.41	30.45
	I	0.11	464.2	0.32	1277.1	0.18	729.3	125.6	0.32	2.85	0.88	7.85	0.50	4.49
ALL	0	1.98	7996.6	15.30	61922.7	2.27	9182.5	2659.8	1.16	10.34	8.97	80.04	1.33	11.87
	I	0.04	149.4	0.29	1157.3	0.04	171.6	266.4	0.12	1.04	0.90	8.02	0.13	1.19

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 19-20/72																
II	0	265.0	34.7	53	236	113	453	1084.4	387.0	518.7	0.52	0.65	39.2	0.59	0.08	0.51
	I				3	4						5.82	72.3			
III	0	408.7	36.9	69	731	267	1152	820.2	1094.4	1208.9	0.63	0.65	39.2	0.35	0.03	0.32
	I				6	9						5.82	72.3			
IV	0	565.9	63.0	84	1676	458	2306	571.3	2258.4	2354.0	0.73	0.62	38.6	0.25	0.03	0.22
	I				22	20	242	508200.0	-1183.8	1667.8	0.09	4.85	68.0	2.34	0.26	2.08
VI	0	590.9	85.3	114	1764	529	2520	858.3	2461.0	2578.2	0.70	0.79	39.2	0.23	0.03	0.20
	I				26	15	61	425.9	20.2	102.7	0.42	4.65	67.3	9.62	1.39	8.23
VIII	0	375.9	21.3	95	618	177	866	251.5	834.3	897.8	0.71	0.75	40.7	0.43	0.02	0.41
	I				20	6	29	9.7	22.3	34.8	0.70	4.37	66.0	13.16	0.75	12.41
ALL	0	2206.4	241.2	415	5025	1544	7254	2693.1	7150.1	7357.6	0.69	0.70	39.2	0.30	0.03	0.27
	I				77	54	258	8093.4	77.9	437.7	0.30	4.86	68.1	8.56	0.94	7.62

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 19-20/72														
II	0	1.71	6915.2	13.05	52810.8	1.97	7957.2	294.3	1.11	9.91	8.48	75.66	1.28	11.40
	I													
III	0	2.82	11403.7	31.21	126306.0	3.10	12535.5	748.6	1.83	16.34	20.29	180.95	2.01	17.96
	I													
IV	0	4.08	16492.8	36.61	148147.0	4.59	18558.9	1429.9	2.53	22.54	22.70	202.45	2.84	25.36
	I	0.43	1730.6	3.84	15545.6	0.48	1947.5	1173.7	2.07	18.50	18.63	166.18	2.33	20.82
VI	0	4.26	17256.4	29.54	119540.0	4.98	20167.7	1990.5	3.37	30.05	23.34	208.15	3.94	35.12
	I	0.10	420.9	0.72	2915.7	0.12	491.9	285.8	0.48	4.31	3.35	29.88	0.57	5.04
VIII	0	2.30	9323.9	40.66	164548.0	2.44	9884.0	649.5	1.73	15.41	30.49	272.01	1.83	16.34
	I	0.08	307.6	1.34	5428.6	0.08	326.1	124.9	0.33	2.96	5.86	52.29	0.35	3.14
ALL	0	3.29	13305.1	30.07	121710.0	3.69	14938.1	5086.6	2.31	20.56	21.09	188.11	2.59	23.09
	I	0.12	472.8	1.07	4325.2	0.13	530.9	1251.5	0.57	5.06	5.19	46.28	0.64	5.68

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 31-AUG. 2/72																
II	0	338.7	59.0	60	139	62	251	424.7	209.7	292.1	0.55	1.07	44.2	1.35	0.24	1.11
	I				15	3	19	1.8	16.1	21.4	0.80	5.67	72.3	18.06	3.15	14.92
III	0	347.6	101.1	83	186	84	339	608.9	289.8	388.5	0.55	1.07	44.2	1.02	0.30	0.73
	I				15	4	20	4.7	16.1	24.8	0.73	5.67	72.3	16.99	4.94	12.05
IV	0	321.8	43.8	68	242	106	431	669.4	378.9	482.4	0.56	0.96	42.8	0.75	0.10	0.65
	I				10	6	25	225.0	-5.0	55.0	0.40	5.67	72.3	12.87	1.75	11.12
VI	0	325.4	40.3	65	295	104	456	282.2	422.0	489.2	0.65	0.96	42.8	0.71	0.09	0.63
	I				15	7	28	59.2	12.7	43.5	0.53	5.83	72.9	11.57	1.43	10.14
VIII	0	245.1	123.1	73	134	73	294	1430.6	218.7	370.0	0.46	0.96	42.8	0.83	0.42	0.41
	I				18	7	29	27.1	19.0	39.9	0.61	5.83	72.9	8.32	4.18	4.14
ALL	0	1578.6	367.3	349	996	429	1750	2517.2	1649.2	1849.9	0.57	1.00	43.3	0.90	0.21	0.69
	I				73	27	116	86.8	97.2	134.5	0.63	5.75	72.6	13.63	3.17	10.46

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 31-AUG. 2/72														
II	0	0.74	2998.2	4.25	17211.6	0.90	3630.6	268.5	0.79	7.07	4.55	40.59	0.96	8.56
	I	0.06	224.0	0.32	1286.1	0.07	271.3	106.3	0.31	2.80	1.80	16.07	0.38	3.39
III	0	0.98	3948.9	3.35	13577.1	1.38	5568.5	362.9	1.04	9.31	3.59	32.02	1.47	13.13
	I	0.06	238.1	0.20	818.8	0.08	335.8	116.0	0.33	2.98	1.15	10.23	0.47	4.20
IV	0	1.34	5415.5	9.83	39787.9	1.55	6268.7	413.4	1.28	11.46	9.44	84.19	1.49	13.26
	I	0.08	314.4	0.57	2309.9	0.09	363.9	141.8	0.44	3.93	3.24	28.87	0.51	4.55
VI	0	1.40	5666.7	11.31	45755.0	1.60	6467.7	437.4	1.34	11.99	10.85	96.81	1.53	13.69
	I	0.09	349.8	0.70	2824.4	0.10	399.2	164.0	0.50	4.49	4.07	36.29	0.58	5.13
VIII	0	1.20	4860.4	2.39	9677.3	2.41	9764.6	282.6	1.15	10.28	2.30	20.48	2.32	20.66
	I	0.12	486.3	0.24	968.3	0.24	977.1	171.7	0.70	6.25	1.39	12.44	1.41	12.56
ALL	0	1.11	4485.4	4.76	19277.4	1.44	5845.4	1743.2	1.10	9.85	4.75	42.33	1.44	12.84
	I	0.07	297.0	0.32	1276.4	0.10	387.1	665.6	0.42	3.76	1.81	16.16	0.55	4.90

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 11-13/72																
II	0	377.4	15.4	99	140	54	228	202.7	199.4	256.4	0.61	1.32	47.2	1.66	0.07	1.59
	I				12	4	18	9.0	12.0	24.0	0.67	6.99	78.9	20.97	0.86	20.11
III	0	420.6	19.6	107	129	62	248	606.3	199.1	297.6	0.52	1.29	46.9	1.69	0.08	1.61
	I				18	9	36	108.0	15.2	56.8	0.50	6.78	78.0	11.68	0.54	11.14
IV	0	312.9	12.6	66	193	75	316	289.6	281.6	349.7	0.61	1.13	45.2	0.99	0.04	0.95
	I				13	4	19	7.0	13.5	24.1	0.69	6.60	77.2	16.66	0.67	15.99
VI	0	358.9	1.7	114	231	84	363	254.0	331.1	394.9	0.64	1.09	44.5	0.99	0.00	0.98
	I				9	1	10	0.2	9.2	11.0	0.89	5.67	72.8	35.45	0.17	35.28
VIII	0	335.0	94.2	92	172	69	287	301.6	252.5	322.0	0.60	1.11	45.1	1.17	0.33	0.84
	I				18	7	29	27.1	19.0	39.9	0.61	6.38	76.2	11.37	3.20	3.18
ALL	0	1804.8	143.5	478	865	344	1436	1452.9	1359.9	1512.4	0.60	1.17	45.7	1.26	0.10	1.16
	I				70	25	109	70.9	92.0	125.7	0.64	6.56	77.0	16.57	1.32	15.26

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 11-13/72														
II	0	0.60	2443.9	14.80	59892.2	0.63	2547.9	300.8	0.80	7.11	19.53	174.25	0.83	7.41
	I	0.05	193.0	1.17	4730.3	0.05	201.2	125.8	0.33	2.97	8.17	72.88	0.35	3.10
III	0	0.59	2389.8	12.67	51284.0	0.62	2506.6	320.4	0.76	6.80	16.35	145.82	0.80	7.13
	I	0.09	346.4	1.84	7433.3	0.09	363.3	244.1	0.58	5.18	12.45	111.08	0.61	5.43
IV	0	1.01	4082.8	25.05	101390.0	1.05	4254.1	356.7	1.14	10.17	28.31	252.53	1.19	10.60
	I	0.06	242.9	1.49	6031.2	0.06	253.1	123.9	0.40	3.53	9.84	87.74	0.41	3.68
VI	0	1.01	4093.2	213.53	864153.0	1.02	4112.7	395.7	1.10	9.83	232.75	2076.10	1.11	9.86
	I	0.03	114.2	5.96	24103.5	0.03	114.7	57.4	0.16	1.43	33.77	301.23	0.16	1.43
VIII	0	0.86	3469.8	3.05	12339.6	1.19	4827.2	318.8	0.95	8.49	3.38	30.19	1.32	11.81
	I	0.09	355.8	0.31	1265.4	0.12	495.0	187.9	0.56	5.00	1.99	17.79	0.78	6.96
ALL	0	0.80	3220.3	10.01	40501.9	0.86	3498.5	1682.2	0.93	8.31	11.72	104.57	1.01	9.03
	I	0.06	244.2	0.76	3070.9	0.07	265.3	714.4	0.40	3.53	4.98	44.41	0.43	3.84

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 17-18/73																
II	0	434.4	41.7	66	245	67	337	83.7	318.9	355.5	0.73	0.50	39.5	1.29	0.12	1.16
	I				19	10	40	159.6	14.8	65.4	0.47	2.72	61.7	10.83	1.04	9.79
III	0	297.1	7.5	64	220	97	393	630.7	343.3	443.7	0.56	0.45	38.3	0.76	0.02	0.74
	I				6	6						2.02	57.6			
IV	0	235.6	53.1	33	372	73	463	41.1	450.0	475.6	0.80	0.51	39.7	0.51	0.11	0.39
	I				34	7	43	4.4	38.6	47.0	0.79	2.29	58.9	5.50	1.24	4.26
VI	0	260.9	64.3	45	88	59	267	5602.7	117.3	416.7	0.33	0.55	40.6	0.98	0.24	0.74
	I				11	4	17	12.1	10.3	24.2	0.64	2.37	59.7	15.09	3.72	11.37
VIII	0	211.9	45.8	49	37	29	171	18551.7	-101.3	443.5	0.22	0.59	41.2	1.24	0.27	0.97
	I				2	3						2.30	59.4			
ALL	0	1439.9	212.4	257	962	325	1453	764.1	1397.5	1508.1	0.66	0.50	39.5	0.99	0.15	0.84
	I				72	30	123	152.9	98.7	148.2	0.58	2.39	59.7	11.67	1.72	9.95

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 17-18/73														
II	0	0.78	3141.6	8.09	32727.2	0.86	3475.2	169.3	0.39	3.48	4.06	36.22	0.43	3.85
	I	0.09	373.7	0.96	3892.8	0.10	413.4	109.2	0.25	2.24	2.62	23.36	0.28	2.48
III	0	1.32	5360.1	52.47	212330.0	1.36	5498.9	175.3	0.59	5.26	23.37	208.47	0.61	5.40
	I													
IV	0	1.96	7950.1	8.72	35273.9	2.54	10263.3	236.2	1.00	8.94	4.45	39.68	1.29	11.55
	I	0.18	735.4	0.81	3263.1	0.23	949.4	98.1	0.42	3.72	1.85	16.48	0.54	4.80
VI	0	1.02	4142.2	4.15	16807.0	1.36	5496.9	148.1	0.57	5.06	2.30	20.54	0.75	6.72
	I	0.07	268.1	0.27	1088.0	0.09	355.8	41.0	0.16	1.40	0.64	5.69	0.21	1.86
VIII	0	0.81	3268.3	3.74	15121.0	1.03	4169.4	100.6	0.47	4.24	2.20	19.60	0.61	5.40
	I													
ALL	0	1.01	4083.3	6.84	27681.5	1.18	4789.9	728.5	0.51	4.51	3.43	30.58	0.59	5.29
	I	0.09	346.9	0.58	2351.8	0.10	406.9	295.5	0.21	1.83	1.39	12.41	0.24	2.15

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 25-28/73																
II	0	453.9	27.3	69	61	57	930	5572520.0	-3791.0	5651.5	0.07	0.82	42.0	0.49	0.03	0.46
	I				11	6	24	118.5	2.4	46.0	0.45	4.30	69.6	18.76	1.13	17.63
III	0	520.9	55.3	108	164	70	286	395.0	246.4	325.9	0.57	0.95	43.7	1.82	0.19	1.63
	I				31	11	48	30.5	37.0	59.1	0.65	3.43	64.8	10.84	1.15	9.69
IV	0	240.8	44.9	33	168	81	324	804.8	267.7	381.2	0.52	0.81	43.0	0.74	0.14	0.60
	I				31	14	57	101.5	36.4	76.7	0.55	3.62	67.3	4.26	0.79	3.47
VI	0	379.4	128.5	59	98	55	223	1300.2	151.2	295.5	0.44	0.96	42.9	1.70	0.58	1.12
	I				13	7	28	127.8	5.6	50.8	0.46	2.98	63.8	13.47	4.56	8.91
VIII	0	336.3	102.4	71	81	34	140	178.7	112.9	166.3	0.58	0.80	45.1	2.41	0.73	1.68
	I				7	4	16	106.5	-4.3	37.0	0.43	3.10	63.4	20.59	6.27	14.32
ALL	0	1931.3	358.4	340	572	297	1190	4385.2	1057.3	1322.2	0.48	0.88	43.3	1.62	0.30	1.32
	I				93	42	170	304.5	134.7	204.5	0.55	3.51	66.0	11.39	2.11	9.27

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 25-28/73														
II	0	2.05	8294.2	34.08	137902.0	2.18	8824.9	761.7	1.68	14.97	27.90	248.87	1.79	15.93
	I	0.05	215.8	0.89	3587.5	0.06	229.6	104.1	0.23	2.05	3.81	34.01	0.24	2.18
III	0	0.55	2223.0	5.17	20939.6	0.61	2487.0	271.6	0.52	4.65	4.91	43.81	0.58	5.20
	I	0.09	373.3	0.87	3516.4	0.10	417.7	164.6	0.32	2.82	2.98	26.55	0.35	3.15
IV	0	1.35	5452.3	7.23	29240.6	1.66	6701.9	264.4	1.10	9.79	5.89	52.52	1.35	12.04
	I	0.23	950.1	1.26	5095.2	0.29	1167.8	204.7	0.85	7.58	4.56	40.66	1.04	9.32
VI	0	0.59	2382.4	1.74	7034.2	0.89	3602.6	214.1	0.56	5.03	1.67	14.86	0.85	7.61
	I	0.07	300.4	0.22	887.1	0.11	454.3	83.9	0.22	1.97	0.65	5.82	0.33	2.98
VIII	0	0.42	1679.9	1.36	5517.0	0.60	2415.3	111.9	0.33	2.97	1.09	9.75	0.48	4.27
	I	0.05	196.6	0.16	645.5	0.07	282.6	50.7	0.15	1.34	0.50	4.42	0.22	1.93
ALL	0	0.62	2493.1	3.32	13434.6	0.76	3061.2	1041.2	0.54	4.81	2.91	25.91	0.66	5.90
	I	0.09	355.4	0.47	1915.0	0.11	436.3	595.0	0.31	2.75	1.66	14.81	0.38	3.37

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 7-9/73																
II	0	333.8	25.4	63	100	34	152	81.6	133.4	169.6	0.66	1.06	45.9	2.20	0.17	2.04
	I				15	4	20	4.7	16.1	24.8	0.73	4.31	70.9	16.32	1.24	15.08
III	0	310.1	9.6	82	105	40	170	143.3	145.7	193.6	0.62	1.21	47.7	1.83	0.06	1.77
	I				17	10	41	325.0	5.2	77.3	0.41	4.32	70.7	7.51	0.23	7.28
IV	0	218.9	32.8	34	162	46	226	63.8	210.3	242.2	0.72	1.14	46.8	0.97	0.14	0.82
	I				30	6	38	3.5	33.8	41.3	0.80	4.05	69.1	5.84	0.87	4.96
VI	0	246.3	32.2	52	134	52	219	199.7	190.7	247.2	0.61	1.30	48.8	1.12	0.15	0.98
	I				18	5	25	6.5	19.8	30.0	0.72	3.64	67.0	9.88	1.29	8.59
VIII	0	190.1	49.3	51	71	25	110	67.6	93.1	126.0	0.65	1.19	47.3	1.73	0.45	1.28
	I				12	4	18	9.0	12.0	24.0	0.67	3.45	65.6	10.56	2.74	7.82
ALL	0	1299.2	149.3	282	572	197	872	493.8	828.0	916.9	0.66	1.18	47.4	1.49	0.17	1.32
	I				92	29	134	54.7	119.6	149.1	0.68	3.99	68.9	9.67	1.11	8.56

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 7-9/73														
II	0	0.45	1837.0	5.97	24141.0	0.49	1988.3	161.3	0.48	4.31	6.35	56.64	0.52	4.67
	I	0.06	248.0	0.81	3259.0	0.07	268.4	88.2	0.26	2.36	3.47	30.98	0.29	2.55
III	0	0.55	2213.6	17.67	71503.5	0.56	2284.3	205.8	0.66	5.92	21.44	191.20	0.68	6.11
	I	0.13	538.8	4.30	17404.5	0.14	556.0	178.2	0.57	5.13	18.56	165.60	0.59	5.29
IV	0	1.03	4182.7	6.90	27914.6	1.22	4919.9	257.3	1.18	10.49	7.84	69.98	1.38	12.33
	I	0.17	693.3	1.14	4626.9	0.20	815.5	151.9	0.69	6.19	4.63	41.30	0.82	7.28
VI	0	0.89	3598.0	6.80	27521.6	1.02	4139.2	283.7	1.15	10.27	8.81	78.58	1.32	11.82
	I	0.10	409.5	0.77	3132.4	0.12	471.1	90.7	0.37	3.28	2.82	25.11	0.42	3.78
VIII	0	0.58	2333.0	2.22	8995.9	0.78	3149.8	130.5	0.69	6.12	2.65	23.61	0.93	8.27
	I	0.09	383.2	0.37	1477.6	0.13	517.4	62.2	0.33	2.92	1.26	11.25	0.44	3.94
ALL	0	0.67	2717.8	5.84	23650.2	0.76	3070.7	1032.9	0.80	7.09	6.92	61.71	0.90	8.01
	I	0.10	418.5	0.90	3641.7	0.12	472.8	536.5	0.41	3.68	3.59	32.06	0.47	4.16

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 10-13/73																
II	0	286.9	18.4	67	119	38	175	74.6	157.6	192.1	0.68	1.44	49.7	1.64	0.11	1.54
	I				24	7	34	10.5	27.4	40.4	0.71	5.43	76.2	8.47	0.54	7.92
III	0	298.6	11.1	82	104	34	155	71.9	137.6	171.5	0.67	1.71	52.9	1.93	0.07	1.86
	I				17	7	29	34.0	17.2	40.6	0.59	6.07	78.7	10.33	0.38	9.95
IV	0	289.3	10.2	44	145	76	305	1184.0	235.9	373.5	0.48	1.46	49.9	0.95	0.03	0.92
	I				22	7	32	13.6	24.9	39.6	0.68	5.12	74.9	8.97	0.32	8.65
V	0	193.1	64.2	38	71	11	84	3.9	80.1	87.9	0.85	1.11	49.2	2.30	0.76	1.53
	I				8	1	9	0.2	8.2	10.1	0.88	5.38	77.9	21.12	7.02	14.10
VI	0	144.4	0.0	52	107	22	135	13.7	127.3	142.1	0.79	1.56	51.2	1.07	0.00	1.07
	I				14	6	25	34.5	12.8	36.2	0.57	4.33	72.1	5.89	0.00	5.89
VIII	0	180.1	48.3	52	63	53	397	129327.0	-322.3	1116.1	0.16	1.37	51.0	0.45	0.12	0.33
	I				6	1	7	0.4	5.9	8.5	0.83	4.86	75.0	25.01	6.71	18.31
ALL	0	1392.4	152.2	335	609	234	989	865.7	930.2	1047.9	0.62	1.47	50.6	1.41	0.15	1.25
	I				91	29	134	56.6	118.5	148.6	0.68	5.26	75.8	10.42	1.14	9.29

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 10-13/73														
II	0	0.61	2466.1	9.50	38452.5	0.65	2635.1	251.1	0.88	7.81	13.65	121.75	0.94	8.34
	I	0.12	477.9	1.84	7452.3	0.13	510.7	184.0	0.64	5.72	10.00	89.19	0.69	6.11
III	0	0.52	2094.2	13.92	56335.1	0.54	2175.0	264.5	0.89	7.90	23.83	212.55	0.92	8.21
	I	0.10	391.7	2.60	10536.8	0.10	406.8	175.3	0.59	5.24	15.80	140.91	0.61	5.44
IV	0	1.05	4262.6	29.87	120898.0	1.09	4418.4	445.1	1.54	13.72	43.64	389.25	1.59	14.23
	I	0.11	451.4	3.16	12802.3	0.12	467.9	165.3	0.57	5.10	16.21	144.60	0.59	5.28
V	0	0.44	1760.8	1.31	5296.2	0.65	2637.8	93.7	0.49	4.33	1.46	13.01	0.73	6.48
	I	0.05	191.6	0.14	576.3	0.07	287.1	49.2	0.25	2.27	0.77	6.83	0.38	3.40
VI	0	0.93	3775.0	0.00	0.0	0.93	3775.0	209.5	1.45	12.94	0.00	0.00	1.45	12.94
	I	0.17	686.6	0.00	0.0	0.17	686.6	106.2	0.74	6.56	0.00	0.00	0.74	6.56
VIII	0	2.20	8918.7	8.22	33255.8	3.01	12187.1	544.3	3.02	26.96	11.27	100.53	4.13	36.84
	I	0.04	161.8	0.15	603.3	0.05	221.1	35.0	0.19	1.73	0.72	6.46	0.27	2.37
ALL	0	0.71	2874.6	6.50	26298.0	0.80	3227.3	1449.8	1.04	9.29	9.53	84.97	1.17	10.43
	I	0.10	388.2	0.88	3551.5	0.11	435.8	703.1	0.50	4.50	4.62	41.20	0.57	5.06

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 21-JUNE 1/74																
II	0	487.9	35.5	71	228	52	295	41.0	282.6	308.2	0.77	0.58	40.5	1.65	0.12	1.53
	I				34	18	72	297.2	37.8	106.7	0.47	3.69	67.0	6.75	0.49	6.26
III	0	316.3	152.1	66	171	44	230	46.8	216.6	243.9	0.74	0.53	39.8	1.37	0.66	0.71
	I				4	1	5	1.0	3.3	7.3	0.75	3.15	65.0	59.31	28.52	30.79
IV	0	292.7	56.1	32	457	103	590	79.0	572.2	607.7	0.77	0.50	39.0	0.50	0.10	0.40
	I				27	8	38	12.5	31.3	45.4	0.70	2.80	62.1	7.63	1.46	6.17
V	0	289.7	77.3	46	343	61	417	28.0	406.6	427.8	0.82	0.59	40.8	0.69	0.19	0.51
	I				9	1	10	0.2	9.2	11.0	0.89	2.72	62.1	28.61	7.63	20.98
VI	0	357.1	63.6	55	140	46	209	98.8	188.6	228.4	0.67	0.56	40.4	1.71	0.31	1.41
	I				4	2	8	24.0	-1.8	17.8	0.50	2.71	62.3	44.64	7.95	36.69
VIII	0	483.4	163.9	77	72	34	136	304.6	101.5	171.3	0.53	0.63	41.6	3.54	1.20	2.34
	I				5	1	6	0.6	4.7	7.8	0.80	1.85	55.2	77.34	26.22	51.12
ALL	0	2227.1	548.5	347	1411	340	1859	306.3	1823.9	1893.9	0.76	0.55	40.1	1.20	0.30	0.90
	I				83	31	132	103.2	112.2	152.8	0.63	3.16	64.1	16.81	4.14	12.67

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 21-JUNE 1/74														
II	0	0.61	2450.0	8.32	33671.5	0.65	2642.2	170.0	0.35	3.11	4.79	42.73	0.38	3.35
	I	0.15	599.3	2.04	8236.5	0.16	646.3	266.6	0.55	4.87	7.51	66.98	0.59	5.26
III	0	0.73	2945.9	1.51	6126.2	1.40	5674.8	122.6	0.39	3.46	0.81	7.19	0.75	6.66
	I	0.02	68.2	0.04	141.9	0.03	131.4	16.8	0.05	0.47	0.11	0.99	0.10	0.91
IV	0	2.02	8157.2	10.52	42559.8	2.49	10091.3	293.3	1.00	8.94	5.23	46.64	1.24	11.06
	I	0.13	530.5	0.68	2767.9	0.16	656.3	107.4	0.37	3.27	1.91	17.08	0.45	4.05
V	0	1.44	5828.1	5.40	21842.0	1.96	7949.1	245.2	0.85	7.55	3.17	28.30	1.15	10.30
	I	0.03	141.4	0.13	530.1	0.05	192.9	27.5	0.10	0.85	0.36	3.18	0.13	1.16
VI	0	0.58	2363.0	3.28	13268.0	0.71	2875.1	116.6	0.33	2.91	1.83	16.35	0.40	3.54
	I	0.02	90.7	0.13	509.1	0.03	110.3	21.6	0.06	0.54	0.34	3.04	0.07	0.66
VIII	0	0.28	1142.1	0.83	3368.5	0.43	1728.0	86.4	0.18	1.59	0.53	4.70	0.27	2.41
	I	0.01	52.3	0.04	154.3	0.02	79.2	11.6	0.02	0.21	0.07	0.63	0.04	0.32
ALL	0	0.83	3378.0	3.39	13715.8	1.11	4481.8	1022.1	0.46	4.09	1.86	16.62	0.61	5.43
	I	0.06	240.7	0.24	977.5	0.08	319.4	418.6	0.19	1.68	0.76	6.81	0.25	2.22

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 19/74																
II	0	461.9	34.1	73	364	40	409	7.8	403.4	414.5	0.89	0.99	45.7	1.13	0.08	1.05
	I				56	8	65	2.4	62.2	68.4	0.86	3.93	69.8	7.07	0.52	6.55

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 19/74														
II	0	0.89	3583.0	11.99	48532.9	0.96	3868.6	404.8	0.88	7.82	11.87	105.88	0.95	8.44
	I	0.14	572.4	1.92	7753.8	0.15	618.1	256.6	0.56	4.96	7.53	67.13	0.60	5.35

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 23-25/74																
II	0	515.7	50.2	71	338	39	382	8.2	376.4	387.8	0.88	1.30	47.7	1.35	0.13	1.22
	I				41	2	43	0.1	42.4	43.8	0.95	4.60	74.3	11.96	1.16	10.80
III	0	304.3	61.7	61	114	18	135	6.5	130.3	140.5	0.84	1.12	45.9	2.25	0.46	1.79
	I				14	3	18	2.0	15.0	20.7	0.79	4.35	72.8	17.08	3.46	13.62
IV	0	281.1	62.5	35	383	62	457	23.6	447.3	466.7	0.84	1.08	45.1	0.62	0.14	0.48
	I				15	4	20	4.7	16.1	24.8	0.73	4.24	72.3	13.74	3.06	10.69
V	0	283.5	84.1	44	202	30	237	9.7	231.0	243.5	0.85	0.84	43.8	1.20	0.35	0.84
	I				14	1	15	0.1	14.4	15.7	0.93	5.09	76.4	18.80	5.58	13.23
VI	0	364.2	78.6	52	235	30	269	7.5	263.9	274.9	0.87	1.03	46.3	1.35	0.29	1.06
	I				10	3	14	4.9	9.9	18.7	0.70	4.95	76.0	25.49	5.50	19.99
VIII	0	449.2	147.2	80	117	26	150	19.3	141.6	159.2	0.78	1.13	47.5	2.99	0.98	2.01
	I				3	4						4.60	73.8			
ALL	0	2198.0	484.3	343	1389	205	1629	65.8	1613.3	1645.7	0.85	1.10	46.0	1.35	0.30	1.05
	I				97	17	118	7.6	112.1	123.1	0.82	4.61	74.2	18.69	4.12	14.57

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 23-25/74														
II	0	0.74	2998.5	7.61	30802.9	0.82	3321.8	495.4	0.96	8.57	9.87	88.04	1.06	9.49
	I	0.08	338.3	0.86	3474.8	0.09	374.7	198.5	0.38	3.43	3.95	35.27	0.43	3.80
III	0	0.44	1800.4	2.19	8879.5	0.56	2258.3	151.4	0.50	4.44	2.45	21.88	0.62	5.57
	I	0.06	237.0	0.29	1168.7	0.07	297.2	77.4	0.25	2.27	1.26	11.20	0.32	2.85
IV	0	1.63	6579.1	7.31	29590.1	2.09	8460.1	492.7	1.75	15.63	7.88	70.31	2.25	20.10
	I	0.07	294.5	0.33	1324.5	0.09	378.7	86.8	0.31	2.76	1.39	12.39	0.40	3.54
V	0	0.84	3386.5	2.82	11415.9	1.19	4814.8	199.6	0.70	6.28	2.37	21.17	1.00	8.93
	I	0.05	215.2	0.18	725.5	0.08	306.0	76.8	0.27	2.42	0.91	8.14	0.38	3.43
VI	0	0.74	2993.5	3.43	13870.5	0.94	3817.3	277.4	0.76	6.79	3.53	31.48	0.97	8.66
	I	0.04	158.7	0.18	735.6	0.05	202.4	70.8	0.19	1.73	0.90	8.03	0.25	2.21
VIII	0	0.33	1355.3	1.02	4135.8	0.50	2015.8	169.9	0.38	3.37	1.15	10.30	0.56	5.02
	I													
ALL	0	0.74	3000.3	3.36	13616.7	0.95	3848.1	1784.6	0.81	7.24	3.68	32.87	1.04	9.29
	I	0.05	216.6	0.24	982.8	0.07	277.7	542.1	0.25	2.20	1.12	9.99	0.32	2.82

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 16/74																
II	0	380.8	8.9	71	248	19	269	2.2	265.6	271.5	0.92	1.43	50.8	1.42	0.03	1.38
	I				29	1	30	0.0	29.6	30.4	0.97	5.36	77.5	12.68	0.30	12.38

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG 16/74														
II	0	0.71	2854.3	30.18	122127.0	0.72	2922.6	383.3	1.01	8.98	43.06	384.11	1.03	9.19
	I	0.08	319.2	3.37	13657.8	0.08	326.8	160.9	0.42	3.77	18.08	161.26	0.43	3.86

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 16-19/74																
II	0	375.3	21.3	70	212	29	246	8.1	239.9	251.3	0.86	1.59	52.0	1.53	0.09	1.44
	I				29	6	37	3.8	32.7	40.5	0.79	5.17	77.7	10.26	0.58	9.68
III	0	218.3	28.3	63	138	23	166	9.3	159.5	171.7	0.83	1.28	48.4	1.32	0.17	1.15
	I				11	2	13	1.0	11.5	15.4	0.82	4.89	75.9	16.24	2.10	14.13
IV	0	247.6	18.7	34	236	59	315	58.3	299.4	329.9	0.75	1.19	47.0	0.79	0.06	0.73
	I				26	4	31	1.4	28.4	33.1	0.85	5.30	78.0	8.06	0.61	7.45
V	0	191.6	58.9	45	166	23	193	6.6	187.6	197.8	0.86	1.22	47.8	0.99	0.31	0.69
	I				15	0	15	0.0	15.0	15.0	1.00	6.06	81.3	12.77	3.93	8.85
VI	0	215.9	13.3	56	244	32	281	8.3	275.1	286.6	0.87	1.44	50.5	0.77	0.05	0.72
	I				17	1	18	0.1	17.5	18.6	0.94	5.43	77.4	11.95	0.74	11.22
VIII	0	172.7	82.4	55	86	23	117	27.1	107.0	127.8	0.73	1.54	51.9	1.47	0.70	0.77
	I				3	1	5	2.3	1.5	7.5	0.67	5.46	77.7	38.38	18.31	20.07
ALL	0	1421.4	222.9	323	1082	189	1311	83.6	1292.7	1329.3	0.83	1.36	49.4	1.08	0.17	0.91
	I				101	14	117	4.0	113.2	121.3	0.86	5.34	78.0	12.12	1.90	10.22

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 16-19/74														
II	0	0.65	2648.4	11.53	46663.2	0.69	2807.7	389.3	1.04	9.25	18.28	163.03	1.10	9.81
	I	0.10	394.3	1.72	6947.4	0.10	418.0	189.0	0.50	4.49	8.87	79.15	0.53	4.76
III	0	0.76	3070.0	5.85	23681.4	0.87	3527.3	211.3	0.97	8.63	7.47	66.61	1.11	9.92
	I	0.06	249.2	0.48	1922.6	0.07	286.4	65.7	0.30	2.69	2.32	20.72	0.35	3.09
IV	0	1.27	5143.2	16.83	68099.3	1.37	5563.4	374.0	1.51	13.47	20.00	178.39	1.63	14.57
	I	0.12	502.2	1.64	6649.9	0.13	543.3	162.9	0.66	5.87	8.71	77.70	0.71	6.35
V	0	1.01	4070.2	3.27	13240.3	1.45	5876.8	234.4	1.22	10.91	3.98	35.50	1.77	15.76
	I	0.08	316.8	0.25	1030.6	0.11	457.5	90.8	0.47	4.23	1.54	13.76	0.68	6.11
VI	0	1.30	5264.1	21.12	85452.6	1.39	5609.7	403.1	1.87	16.65	30.31	270.36	1.99	17.75
	I	0.08	338.6	1.36	5496.2	0.09	360.8	98.1	0.45	4.05	7.38	65.82	0.48	4.32
VIII	0	0.68	2751.0	1.42	5765.8	1.30	5261.4	180.9	1.05	9.34	2.20	19.58	2.00	17.87
	I	0.03	105.5	0.05	221.0	0.05	201.7	24.6	0.14	1.27	0.30	2.66	0.27	2.43
ALL	0	0.92	3732.7	5.88	23802.7	1.09	4426.9	1786.6	1.26	11.21	8.02	71.50	1.49	13.30
	I	0.08	333.8	0.53	2128.9	0.10	395.9	626.0	0.44	3.93	2.81	25.05	0.52	4.66

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 20-22/75																
II	0	480.9	140.7	73	247	70	345	96.6	325.0	364.3	0.72	0.64	40.8	1.40	0.41	0.99
	I				7	3	12	17.2	3.9	20.6	0.57	2.28	58.7	39.26	11.49	27.77
III	0	317.1	95.8	50	71	35	140	389.7	100.5	179.5	0.51	0.55	38.9	2.26	0.68	1.58
IV	0	344.3	123.4	45	337	109	498	222.7	468.3	528.0	0.68	0.60	40.1	0.69	0.25	0.44
	I				19	9	36	81.9	18.0	54.2	0.53	2.21	58.1	9.54	3.42	6.12
V	0	305.8	120.6	45	51	39	217	17170.7	-45.3	478.8	0.24	0.54	40.1	1.41	0.56	0.85
	I				1	1						2.22	58.5			
VI	0	360.8	72.0	56	85	30	131	81.7	113.3	149.4	0.65	0.52	39.9	2.75	0.55	2.20
	I				2	1	4	12.0	-2.9	10.9	0.50	2.31	58.7	90.20	18.00	72.20
VIII	0	432.5	194.2	66	88	15	106	6.3	101.1	111.1	0.83	0.52	39.7	4.08	1.83	2.25
	I				2	0	2	0.0	2.0	2.0	1.00	1.57	51.5	216.25	97.10	119.15
ALL	0	2241.4	746.7	335	879	298	1330	708.7	1276.6	1383.1	0.66	0.59	40.1	1.69	0.56	1.12
	I				31	14	57	101.5	36.4	76.7	0.55	2.20	58.0	39.65	13.21	26.44

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 20-22/75														
II	0	0.72	2900.7	2.45	9914.3	1.01	4100.3	221.5	0.46	4.11	1.57	14.05	0.65	5.81
	I	0.03	103.1	0.09	352.4	0.04	145.7	27.9	0.06	0.52	0.20	1.77	0.08	0.73
III	0	0.44	1787.1	1.46	5915.4	0.63	2560.7	77.1	0.24	2.17	0.80	7.18	0.35	3.11
IV	0	1.45	5854.9	4.04	16335.9	2.25	9125.6	301.1	0.87	7.80	2.44	21.77	1.36	12.16
	I	0.10	424.3	0.29	1183.9	0.16	661.4	79.8	0.23	2.07	0.65	5.77	0.36	3.22
V	0	0.71	2868.5	1.80	7273.5	1.17	4736.4	116.0	0.38	3.38	0.96	8.58	0.63	5.59
	I													
VI	0	0.36	1473.5	1.82	7383.7	0.45	1840.8	68.7	0.19	1.70	0.95	8.52	0.24	2.12
	I	0.01	44.9	0.06	224.8	0.01	56.1	9.2	0.03	0.23	0.13	1.14	0.03	0.28
VIII	0	0.25	992.6	0.55	2210.7	0.45	1801.6	54.7	0.13	1.13	0.28	2.51	0.23	2.05
	I	0.00	18.7	0.01	41.7	0.01	34.0	3.1	0.01	0.06	0.02	0.14	0.01	0.12
ALL	0	0.59	2401.1	1.78	7207.6	0.89	3600.6	783.3	0.35	3.12	1.05	9.36	0.52	4.67
	I	0.03	102.1	0.08	306.4	0.04	153.1	124.6	0.06	0.50	0.17	1.49	0.08	0.74

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 21-24/75																
II	0	371.9	39.5	78	244	32	281	8.3	275.1	286.6	0.87	1.34	49.7	1.32	0.14	1.18
	I				18	2	20	0.4	19.0	21.5	0.89	5.25	76.0	18.37	1.95	16.41
III	0	253.4	17.1	57	160	26	191	10.0	184.7	197.4	0.84	1.12	47.2	1.33	0.09	1.24
	I				13	1	14	0.1	13.4	14.8	0.92	4.70	73.1	17.99	1.21	16.78
IV	0	217.8	32.3	46	312	60	386	32.3	374.9	397.7	0.81	0.98	45.3	0.56	0.08	0.48
	I				4	8						3.63	67.3			
V	0	259.8	42.0	50	261	33	299	8.1	293.1	304.5	0.87	1.05	45.4	0.87	0.14	0.73
	I				9	2	12	1.5	9.1	14.0	0.78	4.03	70.7	22.45	3.63	18.82
VI	0	250.2	19.3	52	247	57	321	46.2	307.5	334.7	0.77	1.20	47.8	0.78	0.06	0.72
	I				14	2	16	0.6	14.8	17.9	0.86	4.04	70.9	15.32	1.18	14.14
VIII	0	177.9	87.6	51	146	11	158	1.2	155.7	160.1	0.92	1.23	47.9	1.13	0.55	0.57
	I				2	0	2	0.0	2.0	2.0	1.00	4.02	71.0	88.95	43.80	45.15
ALL	0	1531.0	237.8	334	1370	219	1631	81.5	1612.6	1648.7	0.84	1.14	47.0	0.94	0.15	0.79
	I				60	15	80	14.8	72.3	87.7	0.75	4.42	72.1	19.14	2.97	16.16

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 21-24/75														
II	0	0.76	3056.0	7.11	28772.6	0.84	3419.1	375.4	1.01	9.00	9.50	84.78	1.13	10.07
	I	0.05	220.4	0.51	2074.7	0.06	246.5	106.3	0.29	2.55	2.69	23.99	0.32	2.85
III	0	0.75	3051.1	11.17	45213.9	0.81	3271.9	214.2	0.85	7.54	12.53	111.74	0.91	8.09
	I	0.06	224.9	0.82	3333.1	0.06	241.2	66.2	0.26	2.33	3.87	34.54	0.28	2.50
IV	0	1.77	7177.7	11.96	48399.3	2.08	8427.5	378.8	1.74	15.51	11.73	104.62	2.04	18.22
	I													
V	0	1.15	4654.1	7.11	28789.2	1.37	5551.6	312.3	1.20	10.72	7.44	66.33	1.43	12.79
	I	0.04	180.3	0.28	1115.0	0.05	215.0	46.6	0.18	1.60	1.11	9.90	0.21	1.91
VI	0	1.28	5193.8	16.64	67331.2	1.39	5627.9	385.4	1.54	13.74	19.97	178.12	1.67	14.89
	I	0.07	264.2	0.85	3424.9	0.07	286.3	66.0	0.26	2.35	3.42	30.51	0.29	2.55
VIII	0	0.89	3591.9	1.80	7294.6	1.75	7076.5	194.0	1.09	9.73	2.22	19.76	2.15	19.17
	I	0.01	45.5	0.02	92.4	0.02	89.6	8.0	0.05	0.40	0.09	0.82	0.09	0.79
ALL	0	1.07	4310.5	6.86	27751.5	1.26	5103.1	1854.8	1.21	10.81	7.80	69.58	1.43	12.79
	I	0.05	211.5	0.34	1361.5	0.06	250.4	353.4	0.23	2.06	1.49	13.26	0.27	2.44

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 16-18/75																
II	0	394.1	27.4	73	224	14	239	1.2	236.7	241.1	0.94	1.87	56.5	1.65	0.11	1.53
	I				51	1	52	0.0	51.7	52.3	0.98	5.02	76.7	7.58	0.53	7.05
III	0	246.2	11.9	55	84	9	94	1.7	91.5	96.7	0.89	1.55	53.2	2.62	0.13	2.49
	I				8	3	13	10.1	6.4	19.2	0.63	6.03	80.5	19.23	0.93	18.30
IV	0	292.0	59.3	45	211	55	285	60.5	269.8	300.9	0.74	1.46	52.1	1.02	0.21	0.82
	I				22	4	27	1.9	24.1	29.7	0.82	3.53	70.9	10.86	2.21	8.65
V	0	259.0	49.7	50	198	22	223	4.4	218.6	226.9	0.89	1.55	52.5	1.16	0.22	0.94
	I				14	0	14	0.0	14.0	14.0	1.00	4.43	73.6	18.50	3.55	14.95
VI	0	265.0	21.8	52	237	25	265	4.6	260.7	269.2	0.89	1.98	56.9	1.00	0.08	0.92
	I				30	3	33	0.5	31.9	34.8	0.90	5.36	78.2	7.95	0.65	7.30
VIII	0	183.4	83.0	52	105	17	125	6.5	120.2	130.4	0.84	1.65	53.4	1.46	0.66	0.80
	I				4	1	5	1.0	3.3	7.3	0.75	5.54	79.2	34.39	15.56	18.82
ALL	0	1639.7	253.1	327	1059	142	1223	38.4	1210.6	1235.4	0.87	1.70	54.3	1.34	0.21	1.13
	I				129	12	142	1.8	139.5	144.9	0.91	4.87	76.1	11.53	1.78	9.75

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 16-18/75														
II	0	0.61	2453.6	8.72	35290.6	0.65	2636.9	445.8	1.13	10.09	16.27	145.13	1.22	10.84
	I	0.13	534.2	1.90	7683.4	0.14	574.1	261.1	0.66	5.91	9.53	84.98	0.71	6.35
III	0	0.38	1546.5	7.91	31995.1	0.40	1625.0	145.7	0.59	5.28	12.24	109.19	0.62	5.55
	I	0.05	210.4	1.08	4353.1	0.05	221.1	77.2	0.31	2.80	6.49	57.90	0.33	2.94
IV	0	0.98	3955.4	4.81	19476.9	1.23	4963.4	415.6	1.42	12.70	7.01	62.51	1.79	15.93
	I	0.09	372.7	0.45	1835.1	0.12	467.6	95.0	0.33	2.90	1.60	14.29	0.41	3.64
V	0	0.86	3480.6	4.48	18138.2	1.06	4307.1	346.0	1.34	11.92	6.96	62.10	1.65	14.75
	I	0.05	218.8	0.28	1140.0	0.07	270.7	62.0	0.24	2.14	1.25	11.14	0.30	2.64
VI	0	1.00	4046.2	12.15	49185.5	1.09	4408.9	525.6	1.98	17.69	24.11	215.05	2.16	19.28
	I	0.13	509.1	1.53	6188.1	0.14	554.7	178.8	0.67	6.02	8.20	73.17	0.74	6.56
VIII	0	0.68	2764.6	1.51	6108.7	1.25	5050.0	206.9	1.13	10.06	2.49	22.23	2.06	18.38
	I	0.03	117.7	0.06	260.0	0.05	215.0	29.6	0.16	1.44	0.36	3.18	0.29	2.63
ALL	0	0.75	3018.5	4.83	19555.3	0.88	3569.5	2075.6	1.27	11.29	8.20	73.15	1.50	13.35
	I	0.09	351.0	0.56	2274.2	0.10	415.1	692.0	0.42	3.76	2.73	24.39	0.50	4.45

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 18-20/76																
II	0	408.7	40.6	76	1229	75	1309	6.2	1303.9	1313.9	0.94	0.53	39.9	0.31	0.03	0.28
	I				34	2	36	0.2	35.3	36.9	0.94	3.05	65.4	11.31	1.12	10.19
III	0	376.9	47.5	55	560	143	752	149.1	727.6	776.5	0.74	0.52	39.9	0.50	0.06	0.44
	I				10	3	14	4.9	9.9	18.7	0.70	2.54	61.5	26.38	3.32	23.06
IV	0	294.3	94.2	36	626	184	887	281.6	.853.0	920.2	0.71	0.52	39.7	0.33	0.11	0.23
	I				13	11	84	30673.5	-265.8	434.8	0.15	2.41	60.5	3.48	1.11	2.37
V	0	283.3	70.6	46	541	113	684	72.8	666.8	700.9	0.79	0.57	40.0	0.41	0.10	0.31
	I				19	3	23	1.1	20.5	24.7	0.84	2.79	63.3	12.56	3.13	9.43
VI	0	405.5	93.4	52	805	154	995	82.1	977 3	1013.5	0.81	0.58	40.2	0.41	0.09	0.31
	I				11	0	11	0.0	11.0	11.0	1.00	2.62	62.4	36.86	8.49	28.37
VIII	0	371.6	184.6	61	290	70	382	63.3	366.4	398.2	0.76	0.57	39.9	0.97	0.48	0.49
	I				5	0	5	0.0	5.0	5.0	1.00	2.37	59.8	74.32	36.92	37.40
ALL	0	2140.3	530.9	326	4051	739	4955	356.8	4917.1	4992.7	0.82	0.54	39.9	0.43	0.11	0.32
	I				92	19	116	11.9	109.0	122.9	0.79	2.73	62.9	18.46	4.58	13.88

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 18-20/76														
II	0	3.20	12960.6	32.24	130468.0	3.56	14390.1	690.3	1.69	15.07	17.00	151.66	1.88	16.73
	I	0.09	357.7	0.89	3600.9	0.10	397.2	110.3	0.27	2.41	2.72	24.24	0.30	2.67
III	0	2.00	8075.1	15.83	64073.7	2.28	9239.5	392.2	1.04	9.28	8.26	73.65	1.19	10.62
	I	0.04	153.4	0.30	1217.1	0.04	175.5	36.3	0.10	0.86	0.77	6.82	0.11	0.98
IV	0	3.01	12191.8	9.41	38089.8	4.43	17931.3	456.7	1.55	13.84	4.85	43.25	2.28	20.36
	I	0.29	1162.0	0.90	3630.3	0.42	1709.0	203.3	0.69	6.16	2.16	19.25	1.02	9.06
V	0	2.41	9768.7	9.69	39199.4	3.22	13011.2	392.3	1.38	12.35	5.56	49.57	1.84	16.45
	I	0.08	322.3	0.32	1293.3	0.11	429.3	62.9	0.22	1.98	0.89	7.95	0.30	2.64
VI	0	2.45	9934.7	10.66	43131.7	3.19	12907.7	579.9	1.43	12.76	6.21	55.38	1.86	16.57
	I	0.03	109.8	0.12	476.6	0.04	142.6	28.9	0.07	0.63	0.31	2.76	0.09	0.83
VIII	0	1.03	4163.2	2.07	8380.6	2.04	8273.0	216.7	0.58	5.20	1.17	10.47	1.16	10.34
	I	0.01	54.5	0.03	109.6	0.03	108.2	11.8	0.03	0.28	0.06	0.57	0.06	0.56
ALL	0	2.32	9369.0	9.33	37770.6	3.08	12459.6	2699.3	1.26	11.25	5.08	45.35	1.68	14.96
	I	0.05	219.2	0.22	883.8	0.07	291.6	316.3	0.15	1.32	0.60	5.31	0.20	1.75

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 13-15/76																
II	0	405.6	41.1	73	361	40	406	7.9	400.4	411.6	0.89	1.14	46.9	1.00	0.10	0.90
	I				33	4	38	0.9	35.6	39.5	0.88	4.58	72.8	10.80	1.09	9.71
III	0	359.3	89.4	55	288	37	330	9.3	324.4	336.6	0.87	1.02	45.5	1.09	0.27	0.82
	I				32	2	34	0.2	33.3	35.0	0.94	4.14	69.6	10.53	2.62	7.91
IV	0	265.6	87.0	36	249	64	335	67.9	318.7	351.6	0.74	0.92	44.3	0.79	0.26	0.53
	I				5	1	6	0.6	4.7	7.8	0.80	4.27	70.8	42.50	13.92	28.58
V	0	272.7	58.9	47	375	63	451	25.8	440.6	460.9	0.83	0.73	42.0	0.61	0.13	0.47
	I				17	1	18	0.1	17.5	18.6	0.94	3.50	68.2	15.10	3.26	11.84
VI	0	412.3	60.5	55	288	33	325	6.9	320.0	330.5	0.89	0.89	44.7	1.27	0.19	1.08
	I				21	3	25	0.9	22.6	26.4	0.86	3.86	70.4	16.83	2.47	14.36
VIII	0	312.8	156.1	60	162	28	196	12.1	188.9	202.8	0.83	0.80	43.0	1.60	0.80	0.80
	I				4	1	5	1.0	3.3	7.3	0.75	4.93	76.4	58.65	29.27	29.38
ALL	0	2028.3	493.0	326	1723	265	2036	91.7	2017.0	2055.3	0.85	0.92	44.5	1.00	0.24	0.75
	I				112	12	125	2.2	122.4	128.4	0.89	4.16	70.8	16.17	3.93	12.24

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 13-15/76														
II	0	1.00	4050.8	9.88	39976.1	1.11	4507.6	463.9	1.14	10.20	11.29	100.68	1.27	11.35
	I	0.09	374.7	0.91	3697.6	0.10	416.9	171.9	0.42	3.78	4.18	37.31	0.47	4.21
III	0	0.92	3722.1	3.70	14959.2	1.22	4955.0	335.5	0.93	8.33	3.75	33.48	1.24	11.09
	I	0.09	384.5	0.38	1545.2	0.13	511.8	141.2	0.39	3.50	1.58	14.09	0.52	4.67
IV	0	1.26	5106.6	3.85	15589.8	1.88	7594.1	309.5	1.17	10.39	3.56	31.73	1.73	15.46
	I	0.02	95.2	0.07	290.7	0.03	141.6	26.7	0.10	0.90	0.31	2.74	0.15	1.33
V	0	1.65	6688.9	7.65	30968.9	2.11	8531.7	328.0	1.20	10.73	5.57	49.68	1.53	13.69
	I	0.07	268.1	0.31	1241.1	0.08	341.9	63.2	0.23	2.07	1.07	9.58	0.30	2.64
VI	0	0.79	3192.7	5.38	21758.2	0.92	3741.8	288.9	0.70	6.25	4.78	42.59	0.82	7.32
	I	0.06	240.5	0.40	1638.9	0.07	281.8	94.5	0.23	2.04	1.56	13.94	0.27	2.40
VIII	0	0.63	2533.9	1.25	5077.6	1.25	5058.1	156.1	0.50	4.45	1.00	8.92	1.00	8.89
	I	0.02	69.0	0.03	138.3	0.03	137.7	26.3	0.08	0.75	0.17	1.50	0.17	1.50
ALL	0	1.00	4062.7	4.13	16714.7	1.33	5367.3	1876.9	0.93	8.25	3.81	33.96	1.22	10.90
	I	0.06	250.3	0.25	1029.7	0.08	330.7	521.9	0.26	2.30	1.06	9.44	0.34	3.03

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 20-23/76																
II	0	370.9	24.7	73	254	14	269	1.0	266.8	270.8	0.94	1.64	52.7	1.38	0.09	1.29
	I				31	1	32	0.0	31.6	32.4	0.97	5.46	78.5	11.58	0.77	10.81
III	0	358.2	28.3	55	155	39	207	39.2	194.6	219.6	0.75	1.39	50.1	1.73	0.14	1.59
	I				23	4	28	1.8	25.2	30.5	0.83	4.55	74.3	12.87	1.03	11.84
IV	0	262.0	68.7	38	153	56	241	173.3	215.0	267.7	0.63	1.20	47.5	1.09	0.28	0.80
	I				17	3	21	1.4	18.3	23.0	0.82	4.45	73.2	12.69	3.33	9.36
V	0	256.8	66.0	48	178	37	225	23.6	215.0	234.4	0.79	1.13	46.0	1.14	0.29	0.85
	I				14	3	18	2.0	15.0	20.7	0.79	4.68	74.4	14.41	3.70	10.71
VI	0	388.5	78.7	53	233	29	266	6.9	260.9	271.4	0.88	1.38	49.8	1.46	0.30	1.16
	I				16	6	26	20.3	16.6	34.6	0.63	4.50	73.6	15.18	3.07	12.10
VIII	0	288.3	110.8	62	97	28	136	40.7	123.6	149.1	0.71	1.40	50.0	2.11	0.81	1.30
	I				8	2	11	2.0	7.9	13.5	0.75	4.88	75.3	27.03	10.39	16.64
ALL	0	1924.7	377.5	329	1070	203	1321	106.3	1299.9	1341.2	0.81	1.37	49.5	1.46	0.29	1.17
	I				109	19	132	8.4	126.2	137.8	0.83	4.80	75.1	14.58	2.86	11.72

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 20-23/76														
II	0	0.72	2933.1	10.88	44044.6	0.78	3142.4	439.9	1.19	10.58	17.81	158.85	1.27	11.33
	I	0.09	349.5	1.30	5248.5	0.09	374.5	175.0	0.47	4.21	7.09	63.21	0.51	4.51
III	0	0.58	2340.0	7.24	29307.1	0.63	2543.0	288.2	0.80	7.18	10.08	89.88	0.87	7.80
	I	0.08	314.6	0.97	3939.8	0.08	341.9	126.7	0.35	3.16	4.43	39.53	0.38	3.43
IV	0	0.92	3727.7	3.51	14216.3	1.25	5052.6	288.8	1.10	9.83	4.20	37.50	1.49	13.33
	I	0.08	318.9	0.30	1216.0	0.11	432.2	91.8	0.35	3.13	1.34	11.92	0.48	4.24
V	0	0.88	3541.3	3.40	13778.8	1.18	4766.2	254.7	0.99	8.85	3.86	34.42	1.33	11.91
	I	0.07	280.8	0.27	1092.6	0.09	377.9	83.4	0.32	2.90	1.26	11.27	0.44	3.90
VI	0	0.69	2772.2	3.38	13684.9	0.86	3476.4	366.5	0.94	8.42	4.66	41.54	1.18	10.55
	I	0.07	266.7	0.33	1316.4	0.08	334.4	115.2	0.30	2.65	1.46	13.06	0.37	3.32
VIII	0	0.47	1914.2	1.23	4980.7	0.77	3109.1	190.7	0.66	5.90	1.72	15.36	1.07	9.59
	I	0.04	149.7	0.10	389.6	0.06	243.2	52.0	0.18	1.61	0.47	4.19	0.29	2.61
ALL	0	0.69	2776.6	3.50	14156.8	0.85	3454.1	1802.8	0.94	8.36	4.78	42.60	1.17	10.39
	I	0.07	277.6	0.35	1415.2	0.09	345.3	633.3	0.33	2.94	1.68	14.97	0.41	3.65

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 16-19/77																
II	0	368.6	20.3	72	102	28	141	35.4	128.7	152.5	0.73	0.94	44.7	2.62	0.14	2.48
	I				7	4	16	106.5	-4.3	37.0	0.43	4.22	72.4	22.57	1.24	21.32
III	0	327.0	61.3	55	119	12	132	2.0	129.5	135.2	0.90	0.93	44.5	2.47	0.46	2.01
	I				11	1	12	0.1	11.3	12.9	0.91	4.17	71.6	27.02	5.07	21.96
IV	0	360.3	81.1	56	172	44	231	46.1	217.5	244.7	0.74	0.98	45.3	1.56	0.35	1.21
	I				18	9	36	108.0	15.2	56.8	0.50	3.25	66.0	10.01	2.25	7.76
V	0	338.1	0.0	50	328	70	417	47.4	403.2	430.8	0.79	0.80	43.0	0.81	0.00	0.81
	I				24	3	27	0.7	25.7	29.1	0.88	4.18	73.0	12.33	0.00	12.33
VI	0	382.4	67.8	50	404	157	661	606.4	611.5	710.0	0.61	0.64	40.0	0.58	0.10	0.48
	I				8	1	9	0.2	8.2	10.1	0.88	2.52	60.4	41.82	7.42	34.41
VIII	0	465.7	264.6	80	181	74	306	349.0	268.8	343.5	0.59	0.56	38.1	1.52	0.86	0.66
	I				8	1	9	0.2	8.2	10.1	0.88	3.21	65.5	50.94	28.94	22.00
ALL	0	2242.1	495.1	363	1306	385	1852	594.2	1803.2	1900.7	0.71	0.75	41.8	1.21	0.27	0.94
	I				76	19	101	18.8	92.7	110.0	0.75	3.67	68.9	22.13	4.89	17.24

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 16-19/77														
II	0	0.38	1543.6	6.93	28028.9	0.40	1633.6	132.1	0.36	3.20	6.51	58.04	0.38	3.38
	I	0.04	179.3	0.80	3256.2	0.05	189.8	68.9	0.19	1.67	3.39	30.27	0.20	1.76
III	0	0.40	1637.9	2.16	8737.4	0.50	2015.8	122.8	0.38	3.35	2.00	17.87	0.46	4.12
	I	0.04	149.8	0.20	798.8	0.05	184.3	50.4	0.15	1.37	0.82	7.33	0.19	1.69
IV	0	0.64	2596.1	2.85	11533.4	0.83	3350.2	225.8	0.63	5.59	2.78	24.84	0.81	7.21
	I	0.10	404.4	0.44	1796.4	0.13	521.8	116.9	0.32	2.89	1.44	12.86	0.42	3.73
V	0	1.23	4991.3	0.00	0.0	1.23	4991.3	332.7	0.98	8.78	0.00	0.00	0.98	8.78
	I	0.08	328.3	0.00	0.0	0.08	328.3	114.8	0.34	3.03	0.00	0.00	0.34	3.03
VI	0	1.73	6993.3	9.75	39442.9	2.10	8500.4	423.7	1.11	9.88	6.25	55.75	1.35	12.01
	I	0.02	96.8	0.13	545.7	0.03	117.6	23.1	0.06	0.54	0.34	3.04	0.07	0.65
VIII	0	0.66	2660.7	1.16	4682.9	1.52	6161.6	171.6	0.37	3.29	0.65	5.79	0.85	7.61
	I	0.02	79.5	0.03	139.8	0.05	184.0	29.3	0.06	0.56	0.11	0.99	0.15	1.30
ALL	0	0.83	3342.8	3.74	15138.0	1.06	4290.1	1396.3	0.62	5.56	2.82	25.16	0.80	7.13
	I	0.05	182.9	0.20	828.3	0.06	234.7	371.9	0.17	1.48	0.75	6.70	0.21	1.90

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 19-21/77																
II	0	374.3	7.0	69	113	15	130	4.0	126.3	134.3	0.87	2.48	59.6	2.87	0.05	2.82
	I				14	1	15	0.1	14.4	15.7	0.93	5.22	77.0	24.83	0.46	24.36
III	0	336.9	52.5	55	111	15	128	4.1	124.3	132.4	0.86	2.34	58.7	2.62	0.41	2.22
	I				18	4	23	3.0	19.7	26.6	0.78	4.53	73.4	14.56	2.27	12.29
IV	0	394.8	95.2	57	175	29	210	11.6	203.0	216.6	0.83	2.08	56.4	1.88	0.45	1.43
	I				24	5	30	3.2	26.7	33.9	0.79	5.10	76.3	13.02	3.14	9.88
V	0	349.5	0.0	50	482	33	517	3.2	513.8	521.0	0.93	1.99	54.0	0.68	0.00	0.68
	I				23	4	28	1.8	25.2	30.5	0.83	5.34	77.7	12.55	0.00	12.55
VI	0	393.9	60.2	49	351	66	432	33.9	420.6	443.9	0.81	1.53	49.2	0.91	0.14	0.77
	I				14	1	15	0.1	14.4	15.7	0.93	4.32	71.3	26.13	3.99	22.13
VIII	0	469.7	227.4	75	207	32	245	11.2	238.2	251.5	0.85	1.56	49.3	1.92	0.93	0.99
	I				13	5	21	18.6	12.5	29.7	0.62	4.67	73.6	22.23	10.76	11.47
ALL	0	2319.1	442.3	355	1439	190	1658	50.0	1643.8	1672.1	0.87	1.89	53.2	1.40	0.27	1.13
	I				106	20	131	10.4	124.2	137.1	0.81	4.91	75.2	17.75	3.39	14.36

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 19-21/77														
II	0	0.35	1408.8	18.61	75329.7	0.35	1435.6	322.9	0.86	7.70	46.13	411.52	0.88	7.84
	I	0.04	163.0	2.15	8716.6	0.04	166.1	78.7	0.21	1.88	11.25	100.34	0.21	1.91
III	0	0.38	1541.7	2.44	9893.5	0.45	1826.3	300.0	0.89	7.94	5.71	50.98	1.05	9.41
	I	0.07	278.0	0.44	1784.0	0.08	329.3	104.8	0.31	2.78	2.00	17.81	0.37	3.29
IV	0	0.53	2150.2	2.20	8917.0	0.70	2833.4	436.2	1.10	9.86	4.58	40.87	1.46	12.99
	I	0.08	310.8	0.32	1288.7	0.10	409.5	154.5	0.39	3.49	1.62	14.47	0.52	4.60
V	0	1.48	5991.5	0.00	0.0	1.48	5991.5	1031.2	2.95	26.32	0.00	0.00	2.95	26.32
	I	0.08	322.4	0.00	0.0	0.08	322.4	148.6	0.43	3.79	0.00	0.00	0.43	3.79
VI	0	1.10	4441.4	7.18	29060.7	1.30	5242.6	663.2	1.68	15.02	11.02	98.26	1.99	17.73
	I	0.04	154.9	0.25	1013.6	0.05	182.8	65.1	0.17	1.48	1.08	9.65	0.20	1.74
VIII	0	0.52	2109.7	1.08	4357.6	1.01	4089.6	381.1	0.81	7.24	1.68	14.95	1.57	14.03
	I	0.04	182.0	0.09	376.0	0.09	352.8	98.7	0.21	1.87	0.43	3.87	0.41	3.63
ALL	0	0.71	2893.2	3.75	15169.6	0.88	3575.0	3128.6	1.35	12.03	7.07	63.10	1.67	14.87
	I	0.06	228.0	0.30	1195.4	0.07	281.7	641.6	0.28	2.47	1.45	12.94	0.34	3.05

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 26-29/77																
II	0	404.5	19.8	66	82	14	99	5.9	94.0	103.7	0.83	3.21	66.2	4.09	0.20	3.89
	I				33	5	39	1.7	36.3	41.5	0.85	6.26	81.6	10.40	0.51	9.89
III	0	349.1	74.5	55	67	24	104	68.8	87.8	121.0	0.64	3.11	65.6	3.34	0.71	2.63
	I				13	5	21	18.6	12.5	29.7	0.62	5.92	80.4	16.53	3.53	13.00
IV	0	378.6	91.3	54	149	15	166	2.5	162.5	168.9	0.90	2.60	61.8	2.29	0.55	1.73
	I				29	3	32	0.5	30.9	33.8	0.90	5.60	79.0	11.70	2.82	8.88
V	0	349.0	13.0	50	379	29	410	3.3	406.8	414.0	0.92	2.36	59.5	0.85	0.03	0.82
	I				17	2	19	0.4	17.9	20.6	0.88	5.84	80.5	18.11	0.67	17.44
VI	0	426.7	80.6	56	256	59	333	47.7	318.9	346.5	0.77	2.03	56.5	1.28	0.24	1.04
	I				18	1	19	0.1	18.5	19.6	0.94	5.54	78.4	22.39	4.23	18.16
VIII	0	439.0	209.9	76	118	14	134	3.1	130.4	137.4	0.88	2.21	58.2	3.28	1.57	1.71
	I				14	1	15	0.1	14.4	15.7	0.93	5.74	79.7	29.12	13.92	15.20
ALL	0	2346.9	489.1	357	1051	155	1233	49.7	1218.7	1246.9	0.85	2.42	59.9	1.90	0.40	1.51
	I				124	17	144	4.8	139.3	148.1	0.86	5.86	80.1	16.33	3.40	12.93

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 26-29/77														
II	0	0.24	989.3	4.99	20211.0	0.26	1040.2	317.6	0.79	7.00	16.04	143.10	0.83	7.37
	I	0.10	389.1	1.96	7949.5	0.10	409.1	243.4	0.60	5.37	12.29	109.64	0.63	5.64
III	0	0.30	1210.2	1.40	5671.0	0.38	1538.6	324.4	0.93	8.29	4.35	38.84	1.18	10.54
	I	0.06	244.9	0.28	1147.6	0.08	311.3	125.0	0.36	3.19	1.68	14.97	0.46	4.06
IV	0	0.44	1771.0	1.81	7344.0	0.58	2333.8	430.6	1.14	10.15	4.72	42.07	1.50	13.37
	I	0.09	345.8	0.35	1433.8	0.11	455.6	181.3	0.48	4.27	1.99	17.71	0.63	5.63
V	0	1.18	4759.0	31.57	127762.0	1.22	4943.2	970.5	2.78	24.80	74.65	665.90	2.89	25.76
	I	0.06	223.4	1.48	5997.9	0.06	232.1	112.5	0.32	2.88	8.66	77.22	0.33	2.99
VI	0	0.78	3155.2	4.13	16703.7	0.96	3890.0	676.7	1.59	14.15	8.40	74.89	1.96	17.44
	I	0.04	180.8	0.24	957.0	0.06	222.9	105.5	0.25	2.21	1.31	11.68	0.30	2.72
VIII	0	0.30	1234.2	0.64	2581.4	0.58	2365.0	295.4	0.67	6.00	1.41	12.55	1.29	11.50
	I	0.03	139.0	0.07	290.7	0.07	266.3	86.6	0.20	1.76	0.41	3.68	0.38	3.37
ALL	0	0.53	2125.9	2.52	10200.8	0.66	2685.5	2979.0	1.27	11.32	6.09	54.33	1.60	14.30
	I	0.06	247.8	0.29	1189.0	0.08	313.0	841.8	0.36	3.20	1.72	15.35	0.45	4.04

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 5-8/78																
II	0	405.0	36.7	70	477	47	529	7.7	523.6	534.7	0.90	1.05	46.0	0.77	0.07	0.70
	I				5	1	6	0.6	4.7	7.8	0.80	5.69	78.3	64.80	5.87	58.93
III	0	319.3	46.9	55	335	28	366	3.6	361.8	369.3	0.92	1.15	47.1	0.87	0.13	0.75
	I				14	3	18	2.0	15.0	20.7	0.79	5.85	78.8	17.92	2.63	15.29
IV	0	399.5	81.9	56	499	88	606	39.7	593.2	618.4	0.82	1.00	45.1	0.66	0.14	0.52
	I				29	12	49	59.4	34.0	64.9	0.59	4.63	72.3	8.08	1.66	6.42
V	0	292.0	41.3	46	372	27	401	2.8	397.7	404.5	0.93	0.75	41.6	0.73	0.10	0.63
	I				34	7	43	4.4	38.6	47.0	0.79	3.61	66.7	6.82	0.96	5.86
VI	0	434.9	99.3	57	710	55	770	6.3	764.6	774.7	0.92	0.75	41.5	0.57	0.13	0.44
	I				36	1	37	0.0	36.7	37.4	0.97	3.88	68.5	11.74	2.68	9.06
VIII	0	432.2	204.0	74	306	65	389	43.5	375.3	401.7	0.79	0.85	43.0	1.11	0.53	0.59
	I				8	3	13	10.1	6.4	19.2	0.63	4.44	72.5	33.77	15.94	17.83
ALL	0	2282.9	510.1	358	2699	310	3049	64.7	3033.1	3065.3	0.89	0.91	43.9	0.75	0.17	0.58
	I				126	27	160	18.4	151.8	169.0	0.79	4.34	70.9	14.24	3.18	11.05

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 5-8/78														
II	0	1.31	5287.5	14.42	58349.3	1.44	5814.3	553.3	1.37	12.19	15.08	134.48	1.50	13.40
	I	0.02	62.5	0.17	689.2	0.02	68.7	35.6	0.09	0.78	0.97	8.65	0.10	0.86
III	0	1.14	4633.3	7.79	31543.6	1.34	5431.0	419.6	1.31	11.72	8.95	79.81	1.54	13.74
	I	0.06	225.8	0.38	1537.5	0.07	264.7	104.3	0.33	2.91	2.22	19.84	0.38	3.42
IV	0	1.52	6137.3	7.40	29937.0	1.91	7719.9	608.5	1.52	13.59	7.43	66.27	1.92	17.09
	I	0.12	501.1	0.60	2444.5	0.16	630.4	229.3	0.57	5.12	2.80	24.97	0.72	6.44
V	0	1.37	5559.3	9.71	39305.2	1.60	6475.1	302.3	1.04	9.23	7.32	65.29	1.21	10.76
	I	0.15	593.4	1.04	4195.4	0.17	691.2	154.7	0.53	4.73	3.75	33.42	0.62	5.50
VI	0	1.77	7161.8	7.75	31366.0	2.29	9280.8	578.3	1.33	11.86	5.82	51.95	1.72	15.37
	I	0.09	344.6	0.37	1509.1	0.11	446.5	143.7	0.33	2.95	1.45	12.91	0.43	3.82
VIII	0	0.90	3638.1	1.90	7707.8	1.70	6890.4	329.4	0.76	6.80	1.61	14.40	1.44	12.87
	I	0.03	119.9	0.06	253.9	0.06	227.0	56.9	0.13	1.17	0.28	2.49	0.25	2.22
ALL	0	1.34	5405.5	5.98	24191.8	1.72	6960.9	2780.9	1.22	10.87	5.45	48.63	1.57	13.99
	I	0.07	284.3	0.31	1272.3	0.09	366.1	696.3	0.31	2.72	1.37	12.18	0.39	3.50

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 25-27/78																
II	0	342.6	12.8	71	447	58	514	14.8	505.9	521.3	0.87	1.65	53.5	0.67	0.02	0.64
	I				8	5	21	256.8	-10.7	53.4	0.38	7.30	85.7	16.06	0.60	15.46
III	0	316.9	20.7	55	319	32	355	5.4	349.9	359.2	0.90	1.66	53.5	0.89	0.06	0.84
	I				10	1	11	0.2	10.3	11.9	0.90	6.93	84.4	28.52	1.86	26.66
IV	0	325.2	47.2	58	452	46	503	7.9	497.6	508.8	0.90	1.41	50.9	0.65	0.09	0.55
	I				26	4	31	1.4	28.4	33.1	0.85	5.31	77.1	10.58	1.54	9.05
V	0	270.8	23.2	49	353	32	388	4.6	383.9	392.5	0.91	1.22	48.4	0.70	0.06	0.64
	I				36	6	43	2.4	40.1	46.3	0.83	4.16	73.4	6.27	0.54	5.73
VI	0	352.4	41.0	55	574	62	644	11.7	636.7	650.4	0.89	1.19	47.8	0.55	0.06	0.48
	I				40	7	48	3.1	45.0	52.0	0.82	4.13	73.3	7.27	0.85	6.42
VIII	0	366.1	132.5	74	294	27	324	4.0	319.7	327.7	0.91	1.47	50.8	1.13	0.41	0.72
	I				8	3	13	10.1	6.4	19.2	0.63	5.08	78.3	28.60	10.35	18.25
ALL	0	1974.0	277.4	362	2439	257	2726	46.7	2712.6	2739.9	0.89	1.41	50.6	0.72	0.10	0.62
	I				128	26	161	15.8	152.7	168.6	0.80	4.90	76.3	12.29	1.73	10.56

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 25-27/78														
II	0	1.50	6067.5	40.13	162401.0	1.56	6303.0	846.8	2.47	22.05	66.16	590.12	2.57	22.90
	I	0.06	252.0	1.67	6745.0	0.06	261.8	155.6	0.45	4.05	12.16	108.47	0.47	4.21
III	0	1.12	4528.0	17.13	69320.6	1.20	4844.5	587.6	1.85	16.54	28.39	253.22	1.98	17.70
	I	0.04	141.9	0.54	2172.3	0.04	151.8	77.1	0.24	2.17	3.72	33.20	0.26	2.32
IV	0	1.55	6262.3	10.66	43146.2	1.81	7325.5	709.1	2.18	19.45	15.02	134.01	2.55	22.75
	I	0.09	382.4	0.65	2634.6	0.11	447.3	163.1	0.50	4.47	3.45	30.81	0.59	5.23
V	0	1.43	5801.3	16.73	67715.7	1.57	6344.9	474.7	1.75	15.64	20.46	182.52	1.92	17.10
	I	0.16	645.6	1.86	7535.8	0.17	706.1	179.9	0.66	5.93	7.75	69.17	0.73	6.48
VI	0	1.83	7390.1	15.70	63519.0	2.07	8363.1	764.2	2.17	19.34	18.64	166.26	2.45	21.89
	I	0.14	556.8	1.18	4785.8	0.16	630.1	200.1	0.57	5.07	4.88	43.54	0.64	5.73
VIII	0	0.88	3578.6	2.44	9887.8	1.39	5608.5	475.8	1.30	11.59	3.59	32.03	2.04	18.17
	I	0.03	141.5	0.10	391.0	0.05	221.8	65.1	0.18	1.59	0.49	4.38	0.28	2.49
ALL	0	1.38	5589.3	9.83	39773.7	1.61	6503.1	3856.7	1.95	17.43	13.90	124.02	2.27	20.28
	I	0.08	329.3	0.58	2343.4	0.09	383.2	787.7	0.40	3.56	2.84	25.33	0.46	4.14

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 20-OCT. 5/78																
II	0	507.7	57.2	71	201	25	230	5.9	224.7	234.4	0.88	2.52	61.0	2.21	0.25	1.96
	I				7	3	12	17.2	3.9	20.6	0.57	6.80	85.0	41.44	4.67	36.78
III	0	401.3	85.0	55	133	8	142	0.7	139.9	143.1	0.94	2.52	60.8	2.84	0.60	2.24
	I				15	1	16	0.1	15.5	16.7	0.93	8.33	90.5	24.97	5.29	19.68
IV	0	423.5	124.8	58	277	33	314	7.3	309.1	319.9	0.88	2.18	57.8	1.35	0.40	0.95
	I				16	4	21	4.0	17.4	25.3	0.75	6.75	84.7	19.85	5.85	14.00
V	0	330.4	97.7	49	176	34	218	18.5	209.5	226.7	0.81	1.68	54.4	1.51	0.45	1.07
	I				30	2	32	0.2	31.3	33.0	0.93	5.26	77.3	10.28	3.04	7.24
VI	0	435.1	127.8	56	236	22	260	3.3	256.6	263.9	0.91	1.61	53.5	1.67	0.49	1.18
	I				40	2	42	0.1	41.4	42.8	0.95	5.25	77.3	10.33	3.04	7.30
VIII	0	453.6	218.9	72	115	8	124	0.8	121.8	125.4	0.93	1.93	56.4	3.67	1.77	1.90
	I				7	0	7	0.0	7.0	7.0	1.00	5.73	79.7	64.80	31.27	33.53
ALL	0	2551.6	711.4	361	1138	130	1285	26.9	1274.4	1295.1	0.89	2.06	57.1	1.99	0.55	1.43
	I				115	12	128	2.1	125.5	131.3	0.90	6.03	80.9	19.87	5.54	14.33

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 20-OCT. 5/78														
II	0	0.45	1829.8	4.01	16241.2	0.51	2062.1	577.6	1.14	10.15	10.10	90.08	1.28	11.44
	I	0.02	97.6	0.21	866.7	0.03	110.0	83.3	0.16	1.46	1.46	13.00	0.19	1.65
III	0	0.35	1427.1	1.66	6737.6	0.45	1810.6	356.7	0.89	7.93	4.20	37.43	1.13	10.06
	I	0.04	162.1	0.19	765.2	0.05	205.6	133.9	0.33	2.98	1.58	14.05	0.42	3.78
IV	0	0.74	3005.0	2.52	10197.4	1.05	4260.6	686.4	1.62	14.46	5.50	49.06	2.30	20.50
	I	0.05	203.9	0.17	691.8	0.07	289.0	144.0	0.34	3.03	1.15	10.29	0.48	4.30
V	0	0.66	2672.0	2.23	9036.0	0.94	3793.8	366.2	1.11	9.89	3.75	33.43	1.57	14.04
	I	0.10	393.7	0.33	1331.4	0.14	559.0	169.2	0.51	4.57	1.73	15.44	0.73	6.48
VI	0	0.60	2420.8	2.04	8241.6	0.85	3427.5	419.5	0.96	8.60	3.28	29.28	1.37	12.18
	I	0.10	391.6	0.33	1333.3	0.14	554.5	221.2	0.51	4.54	1.73	15.44	0.72	6.42
VIII	0	0.27	1102.7	0.56	2285.1	0.53	2131.2	237.9	0.52	4.68	1.09	9.70	1.01	9.04
	I	0.02	62.5	0.03	129.4	0.03	120.7	40.1	0.09	0.79	0.18	1.63	0.17	1.52
ALL	0	0.50	2037.7	1.81	7308.8	0.70	2825.5	2640.4	1.03	9.23	3.71	33.11	1.43	12.80
	I	0.05	203.6	0.18	730.4	0.07	282.4	773.9	0.30	2.71	1.09	9.70	0.42	3.75

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 4-13/79																
II	0	427.8	47.8	71	550	100	672	47.9	658.4	686.1	0.82	0.84	43.3	0.64	0.07	0.57
	I				19	2	21	0.4	20.0	22.4	0.89	5.07	75.6	20.15	2.25	17.89
III	0	361.8	54.3	55	457	16	474	0.7	471.9	475.2	0.96	1.20	48.6	0.76	0.11	0.65
	I				32	4	37	1.0	34.6	38.5	0.88	5.45	77.0	9.89	1.48	8.41
IV	0	375.1	66.4	59	705	74	788	13.4	780.4	795.0	0.90	0.95	45.0	0.48	0.08	0.39
	I				56	5	61	0.7	59.8	63.2	0.91	4.66	73.6	6.10	1.08	5.02
V	0	233.9	99.4	61	62	12	77	6.6	71.8	82.0	0.81	1.22	48.4	3.04	1.29	1.75
	I				35	11	51	20.6	42.0	60.1	0.69	4.11	70.2	4.58	1.95	2.64
VI	0	342.4	38.0	79	167	54	247	110.2	225.8	267.8	0.68	1.06	46.4	1.39	0.15	1.23
	I				20	8	33	34.6	21.6	45.1	0.60	3.84	68.4	10.27	1.14	9.13
VIII	0	470.2	197.3	74	905	233	1219	248.1	1187.3	1250.3	0.74	0.93	44.5	0.39	0.16	0.22
	I				12	2	14	0.8	12.6	16.2	0.83	5.14	76.3	32.65	13.70	18.95
ALL	0	2211.2	503.2	399	2846	489	3436	209.3	3407.5	3465.4	0.83	0.97	45.2	0.64	0.15	0.50
	I				174	32	213	15.7	205.3	221.1	0.82	4.64	73.1	10.37	2.36	8.01

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 4-13/79														
II	0	1.57	6359.2	14.06	56913.9	1.77	7159.2	564.5	1.32	11.77	11.81	105.34	1.49	13.25
	I	0.05	200.9	0.44	1797.9	0.06	226.2	107.7	0.25	2.25	2.25	20.10	0.28	2.53
III	0	1.31	5297.3	8.72	35296.1	1.54	6232.8	567.9	1.57	14.00	10.46	93.29	1.85	16.47
	I	0.10	409.1	0.67	2725.7	0.12	481.3	199.4	0.55	4.92	3.67	32.75	0.65	5.78
IV	0	2.10	8498.4	11.86	48008.1	2.55	10326.3	748.4	2.00	17.80	11.27	100.54	2.42	21.63
	I	0.16	663.4	0.93	3747.8	0.20	806.1	286.6	0.76	6.81	4.32	38.50	0.93	8.28
V	0	0.33	1330.2	0.77	3130.1	0.57	2313.3	93.5	0.40	3.57	0.94	8.39	0.70	6.20
	I	0.22	883.1	0.51	2078.1	0.38	1535.8	210.0	0.90	8.01	2.11	18.84	1.56	13.92
VI	0	0.72	2917.1	6.49	26284.8	0.81	3281.3	260.9	0.76	6.80	6.86	61.23	0.86	7.64
	I	0.10	394.0	0.88	3550.0	0.11	443.2	128.1	0.37	3.34	3.37	30.08	0.42	3.75
VIII	0	2.59	10490.1	6.18	24999.6	4.47	18074.1	1133.1	2.41	21.50	5.74	51.23	4.15	37.04
	I	0.03	123.9	0.07	295.4	0.05	213.5	74.0	0.16	1.40	0.38	3.35	0.27	2.42
ALL	0	1.55	6289.5	6.83	27637.8	2.01	8142.5	3333.1	1.51	13.45	6.62	59.08	1.95	17.41
	I	0.10	390.2	0.42	1714.8	0.12	505.2	989.3	0.45	3.99	1.97	17.54	0.58	5.17

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 24-26/79																
II	0	480.2	35.0	67	368	45	419	10.4	412.8	425.7	0.88	1.46	51.1	1.15	0.08	1.06
	I				15	5	23	11.3	15.8	29.2	0.67	4.84	77.0	21.34	1.56	19.79
III	0	384.1	70.4	55	373	21	395	1.6	392.7	397.8	0.94	1.99	56.7	0.97	0.18	0.79
	I				32	4	37	1.0	34.6	38.5	0.88	5.41	80.1	10.50	1.92	8.58
IV	0	369.4	73.7	53	556	82	652	26.3	641.9	662.4	0.85	1.51	51.6	0.57	0.11	0.45
	I				45	6	52	1.6	49.4	54.5	0.87	5.13	78.7	7.11	1.42	5.69
V	0	208.0	88.4	57	80	9	90	1.8	87.4	92.8	0.89	1.94	55.5	2.31	0.98	1.33
	I				21	5	28	4.4	23.4	31.7	0.76	4.54	74.0	7.55	3.21	4.34
VI	0	328.1	1.6	76	168	14	183	1.8	180.6	185.9	0.92	1.77	54.0	1.79	0.01	1.78
	I				11	1	12	0.1	11.3	12.9	0.91	4.71	75.3	27.12	0.13	26.98
VIII	0	499.3	151.0	76	635	132	802	84.2	783.3	820.0	0.79	1.34	49.1	0.62	0.19	0.43
	I				5	3	13	112.5	-8.7	33.7	0.40	5.47	80.9	39.94	12.08	27.86
ALL	0	2269.1	420.1	384	2180	303	2532	87.3	2513.2	2550.6	0.86	1.56	51.9	0.90	0.17	0.73
	I				129	24	158	12.1	151.5	165.4	0.81	5.04	77.9	14.32	2.65	11.67

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 24-26/79														
II	0	0.87	3533.5	11.98	48479.5	0.94	3811.3	612.8	1.28	11.38	17.51	156.16	1.38	12.28
	I	0.05	189.6	0.64	2601.6	0.05	204.5	109.0	0.23	2.02	3.11	27.77	0.24	2.18
III	0	1.03	4164.5	5.61	22721.4	1.26	5099.1	787.6	2.05	18.29	11.19	99.80	2.51	22.40
	I	0.10	385.3	0.52	2102.3	0.12	471.8	198.0	0.52	4.60	2.81	25.09	0.63	5.63
IV	0	1.77	7145.1	8.85	35812.7	2.21	8925.9	983.0	2.66	23.74	13.34	118.97	3.32	29.65
	I	0.14	568.8	0.70	2851.2	0.18	710.6	266.2	0.72	6.43	3.61	32.21	0.90	8.03
V	0	0.43	1753.8	1.02	4126.7	0.75	3050.2	174.5	0.84	7.48	1.97	17.61	1.46	13.01
	I	0.13	536.3	0.31	1261.8	0.23	932.7	125.1	0.60	5.36	1.41	12.62	1.05	9.33
VI	0	0.56	2260.6	114.55	463565.0	0.56	2271.7	324.1	0.99	8.81	202.54	1806.66	0.99	8.85
	I	0.04	149.2	7.56	30605.4	0.04	150.0	57.0	0.17	1.55	35.65	318.01	0.17	1.56
VIII	0	1.61	6497.6	5.31	21485.0	2.30	9314.5	1070.6	2.14	19.13	7.09	63.24	3.07	27.42
	I	0.03	101.3	0.08	335.0	0.04	145.2	68.4	0.14	1.22	0.45	4.04	0.20	1.75
ALL	0	1.12	4515.7	6.03	24391.0	1.37	5541.7	3945.0	1.74	15.51	9.39	83.76	2.13	19.03
	I	0.07	282.7	0.38	1526.8	0.09	346.9	799.2	0.35	3.14	1.90	16.97	0.43	3.86

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 18-20/79																
II	0	414.5	38.5	70	240	47	298	26.3	288.2	308.7	0.80	2.10	57.4	1.39	0.13	1.26
	I				34	7	43	4.4	38.6	47.0	0.79	5.73	79.5	9.68	0.90	8.78
III	0	394.5	84.3	55	217	19	238	2.6	234.6	241.1	0.91	2.61	61.9	1.66	0.35	1.30
	I				35	8	45	6.3	40.3	50.4	0.77	6.24	82.0	8.70	1.86	6.84
IV	0	434.0	66.7	59	450	41	495	6.0	490.2	500.0	0.91	2.07	57.0	0.88	0.13	0.74
	I				37	7	46	3.6	41.8	49.5	0.81	6.20	81.8	9.51	1.46	8.05
V	0	230.9	59.7	58	60	6	67	1.0	64.7	68.7	0.90	2.63	62.7	3.46	0.90	2.57
	I				21	2	23	0.3	22.1	24.3	0.90	5.32	78.7	9.95	2.57	7.38
VI	0	368.4	23.7	77	176	12	189	1.2	186.7	191.0	0.93	2.40	60.7	1.95	0.13	1.82
	I				17	6	26	16.3	18.2	34.4	0.65	4.44	74.2	14.02	0.90	13.12
VIII	0	429.2	164.0	72	350	45	402	11.3	394.9	408.4	0.87	1.82	55.1	1.07	0.41	0.66
	I				13	2	15	0.7	13.7	17.0	0.85	5.61	79.7	27.94	10.67	17.26
ALL	0	2271.5	436.9	391	1493	170	1685	35.0	1673.0	1696.7	0.89	2.15	58.0	1.35	0.26	1.09
	I				157	32	197	19.5	188.4	206.0	0.80	5.74	79.9	11.52	2.22	9.30

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 18-20/79														
II	0	0.72	2913.9	7.75	31371.7	0.79	3212.3	627.5	1.51	13.50	16.30	145.38	1.67	14.89
	I	0.10	418.0	1.11	4500.6	0.11	460.8	245.2	0.59	5.28	6.37	56.82	0.65	5.82
III	0	0.60	2439.7	2.82	11417.2	0.77	3102.7	621.8	1.58	14.06	7.38	65.79	2.00	17.88
	I	0.12	465.4	0.54	2178.1	0.15	591.9	283.1	0.72	6.40	3.36	29.96	0.91	8.14
IV	0	1.14	4616.8	7.42	30040.6	1.35	5455.2	1024.5	2.36	21.06	15.36	137.01	2.79	24.88
	I	0.11	425.5	0.68	2768.8	0.12	502.8	283.1	0.65	5.82	4.24	37.86	0.77	6.88
V	0	0.29	1168.5	1.12	4519.3	0.39	1575.9	175.1	0.76	6.76	2.93	26.16	1.02	9.12
	I	0.10	406.8	0.39	1573.4	0.14	548.7	123.6	0.54	4.77	2.07	18.46	0.72	6.44
VI	0	0.51	2074.9	7.97	32252.7	0.55	2217.6	453.8	1.23	10.99	19.15	170.78	1.32	11.74
	I	0.07	288.6	1.11	4486.3	0.08	308.5	116.6	0.32	2.82	4.92	43.90	0.34	3.02
VIII	0	0.94	3787.1	2.45	9911.2	1.51	6129.1	730.7	1.70	15.19	4.46	39.74	2.76	24.58
	I	0.04	144.9	0.09	379.1	0.06	234.5	86.2	0.20	1.79	0.53	4.69	0.32	2.90
ALL	0	0.74	3001.8	3.86	15606.7	0.92	3716.6	3627.0	1.60	14.24	8.30	74.05	1.98	17.63
	I	0.09	351.3	0.45	1826.6	0.11	435.0	1131.8	0.50	4.44	2.59	23.11	0.62	5.50

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 22-24/80																
II	0	412.2	27.6	65	384	54	447	15.9	438.9	454.8	0.86	1.20	47.0	0.92	0.06	0.86
	I				36	2	38	0.1	37.3	38.9	0.94	4.02	72.1	10.81	0.72	10.09
III	0	320.2	110.8	55	345	57	413	22.6	403.8	422.8	0.83	1.38	49.2	0.77	0.27	0.51
	I				33	5	39	1.7	36.3	41.5	0.85	5.79	78.9	8.23	2.85	5.38
IV	0	328.8	120.5	54	621	111	756	51.4	741.8	770.5	0.82	1.23	47.4	0.43	0.16	0.28
	I				60	6	67	1.0	64.7	68.7	0.90	4.35	73.4	4.93	1.81	3.12
V	0	230.0	42.4	55	149	68	274	517.5	228.6	319.6	0.54	1.07	46.0	0.84	0.15	0.68
	I				10	4	17	17.3	8.4	25.0	0.60	5.13	76.7	13.80	2.54	11.26
VI	0	386.8	98.9	75	519	52	577	6.7	570.9	582.7	0.90	1.06	45.8	0.67	0.17	0.50
	I				18	0	18	0.0	18.0	18.0	1.00	5.30	78.0	21.49	5.49	15.99
VIII	0	407.5	133.3	68	534	123	694	99.3	673.9	713.7	0.77	1.17	47.5	0.59	0.19	0.40
	I				29	9	42	16.2	34.0	50.1	0.69	5.04	75.9	9.69	3.17	6.52
ALL	0	2085.5	533.5	372	2552	465	3121	224.0	3090.7	3150.5	0.82	1.19	47.2	0.67	0.17	0.50
	I				186	26	216	7.6	210.7	221.7	0.86	4.81	75.2	9.65	2.47	7.18

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 22-24/80														
II	0	1.08	4387.1	16.19	65519.8	1.16	4701.9	535.2	1.30	11.58	19.39	172.98	1.39	12.41
	I	0.09	374.2	1.38	5589.2	0.10	401.1	153.1	0.37	3.31	5.55	49.50	0.40	3.55
III	0	1.29	5223.5	3.73	15095.2	1.97	7987.3	572.2	1.79	15.94	5.16	46.07	2.73	24.38
	I	0.12	491.6	0.35	1420.6	0.19	751.7	225.1	0.70	6.27	2.03	18.12	1.07	9.59
IV	0	2.30	9307.1	6.28	25395.6	3.63	14691.2	931.1	2.83	25.26	7.73	68.92	4.47	39.87
	I	0.20	820.6	0.55	2239.0	0.32	1295.2	290.1	0.88	7.87	2.41	21.48	1.39	12.42
V	0	1.19	4822.7	6.46	26161.0	1.46	5912.7	292.7	1.27	11.35	6.90	61.57	1.56	13.92
	I	0.07	293.3	0.39	1590.8	0.09	359.5	85.6	0.37	3.32	2.02	18.00	0.46	4.07
VI	0	1.49	6034.8	5.83	23602.3	2.00	8107.9	612.2	1.58	14.12	6.19	55.22	2.13	18.97
	I	0.05	188.3	0.18	736.6	0.06	253.0	95.5	0.25	2.20	0.97	8.61	0.33	2.96
VIII	0	1.70	6890.4	5.20	21064.1	2.53	10240.2	810.1	1.99	17.73	6.08	54.21	2.95	26.35
	I	0.10	417.6	0.32	1276.6	0.15	620.6	212.1	0.52	4.64	1.59	14.19	0.77	6.90
ALL	0	1.50	6055.7	5.85	23672.1	2.01	8137.3	3710.6	1.78	15.87	6.96	62.04	2.39	21.33
	I	0.10	419.6	0.41	1640.2	0.14	563.8	1039.1	0.50	4.44	1.95	17.37	0.67	5.97

Appendix table I (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 16-18/80																
II	0	419.5	14.3	68	241	42	292	18.5	283.3	300.5	0.83	1.66	53.2	1.44	0.05	1.39
	I				36	11	52	18.9	43.2	60.5	0.69	4.74	73.5	8.09	0.28	7.82
III	0	308.0	53.4	55	279	21	302	2.3	298.7	304.8	0.92	1.77	54.3	1.02	0.18	0.84
	I				56	1	57	0.0	56.7	57.3	0.98	5.81	77.7	5.40	0.94	4.47
IV	0	335.1	115.0	57	565	81	660	24.7	649.6	669.5	0.86	1.44	50.4	0.51	0.17	0.33
	I				51	11	65	7.6	59.5	70.5	0.78	5.31	76.3	5.15	1.77	3.38
V	0	232.0	80.8	54	270	16	287	1.3	284.7	289.3	0.94	1.31	49.5	0.81	0.28	0.53
	I				19	3	23	1.1	20.5	24.7	0.84	5.29	76.4	10.28	3.58	6.70
VI	0	362.9	74.8	75	360	50	418	14.4	410.5	425.6	0.86	1.41	50.6	0.87	0.18	0.69
	I				9	7	41	3969.0	-85.5	166.5	0.22	5.80	79.8	8.96	1.85	7.11
VIII	0	392.1	105.8	68	522	82	619	29.5	608.4	630.1	0.84	1.58	52.7	0.63	0.17	0.46
	I				36	11	52	18.9	43.2	60.5	0.69	5.45	78.4	7.56	2.04	5.52
ALL	0	2049.6	444.1	377	2237	292	2573	75.4	2555.5	2590.2	0.87	1.52	51.7	0.80	0.17	0.62
	I				207	44	263	29.5	252.0	273.7	0.79	5.37	76.7	7.80	1.69	6.11

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 16-18/80														
II	0	0.70	2815.7	20.41	82599.6	0.72	2915.0	483.9	1.15	10.29	33.84	301.85	1.19	10.65
	I	0.12	500.1	3.63	14671.1	0.13	517.8	245.5	0.59	5.22	17.17	153.16	0.61	5.41
III	0	0.98	3964.3	5.65	22865.5	1.19	4795.8	535.1	1.74	15.50	10.02	89.39	2.10	18.75
	I	0.19	749.2	1.07	4321.2	0.22	906.3	331.2	1.08	9.59	6.20	55.32	1.30	11.60
IV	0	1.97	7965.5	5.74	23210.6	3.00	12127.3	947.8	2.83	25.23	8.24	73.51	4.31	38.41
	I	0.19	785.3	0.57	2288.3	0.30	1195.6	345.4	1.03	9.20	3.00	26.79	1.57	14.00
V	0	1.24	5006.6	3.55	14375.3	1.90	7682.0	376.4	1.62	14.47	4.66	41.55	2.49	22.20
	I	0.10	393.6	0.28	1130.1	0.15	603.9	119.4	0.51	4.59	1.48	13.18	0.79	7.04
VI	0	1.15	4662.2	5.59	22619.1	1.45	5872.6	591.3	1.63	14.53	7.90	70.51	2.05	18.31
	I	0.11	451.6	0.54	2191.2	0.14	568.9	235.0	0.65	5.78	3.14	28.02	0.82	7.27
VIII	0	1.58	6391.8	5.85	23688.4	2.16	8753.9	977.2	2.49	22.23	9.24	82.38	3.41	30.44
	I	0.13	535.1	0.49	1983.0	0.18	732.8	282.3	0.72	6.42	2.67	23.80	0.99	8.79
ALL	0	1.26	5080.2	5.79	23445.8	1.60	6485.4	3904.1	1.90	16.99	8.79	78.42	2.43	21.69
	I	0.13	519.1	0.59	2395.6	0.16	662.6	1412.0	0.69	6.15	3.18	28.36	0.88	7.84

Appendix table II. Carnation Creek rainbow.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 6-8/70																
ALL	0	2445.0	893.4	610	22	41	4	193	5480.4	45.1	341.3	0.64	40.3	12.66	4.62	8.03
	I				18	10	3	52	347.5	15.0	89.5	4.93	71.8	46.79	17.10	29.70
	II+				44	17	7	101	632.8	50.9	151.6	15.02	107.4	24.15	8.82	15.32
SEP. 14-16/70																
ALL	0	2289.8	893.4	610	60	54	9	336	8372.3	152.5	518.5	1.46	51.3	6.83	2.66	4.16
	I				22	23	3	138	3174.0	25.3	250.7	6.93	80.4	16.59	6.47	10.12
	II				27	13	4	78	658.6	27.1	129.7	19.40	115.4	29.21	11.40	17.81

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 6-8/70														
ALL	0	0.08	319.8	0.22	875.2	0.12	503.9	123.6	0.05	0.45	0.14	1.23	0.08	0.71
	I	0.02	86.5	0.06	236.7	0.03	136.3	257.6	0.11	0.94	0.29	2.57	0.17	1.48
	II+	0.04	167.6	0.11	458.7	0.07	264.1	1520.8	0.62	5.55	1.70	15.18	0.98	8.74
SEPT. 14-16/70														
ALL	0	0.15	593.0	0.38	1519.8	0.24	972.3	489.8	0.21	1.91	0.55	4.89	0.35	3.13
	I	0.06	243.9	0.15	625.1	0.10	399.9	956.3	0.42	3.73	1.07	9.55	0.68	6.11
	II	0.03	138.6	0.09	355.1	0.06	227.2	1521.0	0.66	5.92	1.70	15.19	1.09	9.72

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 4/71																
II	0	877.0	116.0	170	12	25	3	85	1208.3	15.0	154.0	0.42	35.9	10.38	1.37	9.01
	I-III				16	7	1	68	1156.0	0.0	136.0			12.90	1.71	11.19
III	0	608.0	45.0	125	17	25	1	234	16848.0	-25.6	493.6	0.42	35.9	2.60	0.19	2.41
	I-III				4	2	1	8	6.3	2.5	12.5			81.07	6.00	75.07
IV	0	580.0	47.0	100	34	61	3	543	55063.8	73.2	1011.8	0.42	35.9	1.07	0.09	0.98
	I-III				10	7	2	29	134.4	6.1	52.5			19.77	1.60	18.17
VI	0	372.0	46.0	130	26	35	2	324	24057.0	13.8	634.2	0.42	35.9	1.15	0.14	1.01
	I-III				9	8	5	15	10.7	8.5	21.5			24.80	3.07	21.73
VIII	0	367.0	107.0	115	57	87	7	638	41115.6	232.5	1043.5	0.42	35.9	0.58	0.17	0.41
	I-III				19	19	9	40	72.7	22.9	57.1			9.18	2.67	6.50
ALL	0	2804.0	361.0	640	146	233	16	2023	210931.0	1104.9	2942.0	0.42	35.9	1.39	0.18	1.21
	I				26	24	10	61	175.7	34.9	87.9	5.70	76.3	45.69	5.88	39.81
	II				13	10	5	26	42.8	12.6	38.7	12.39	99.9	109.25	14.06	95.18
	III				19	9	3	50	300.0	15.4	84.6	35.08	139.1	56.08	7.22	48.86

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 4/71														
II	0	0.10	389.9	0.73	2948.0	0.11	449.4	35.5	0.04	0.36	0.31	2.73	0.05	0.42
	I-III	0.08	313.8	0.59	2372.4	0.09	361.6							
III	0	0.38	1557.6	5.20	21044.4	0.42	1682.1	98.3	0.16	1.44	2.18	19.48	0.17	1.56
	I-III	0.01	49.9	0.17	674.5	0.01	53.9							
IV	0	0.94	3785.3	11.54	46712.7	1.02	4119.1	227.2	0.39	3.50	4.85	43.24	0.43	3.81
	I-III	0.05	204.7	0.62	2525.8	0.06	222.7							
VI	0	0.87	3524.8	7.04	28505.0	0.99	4022.2	136.1	0.37	3.26	2.96	26.39	0.42	3.72
	I-III	0.04	163.2	0.33	1319.7	0.05	186.2							
VIII	0	1.74	7035.4	5.96	24130.7	2.45	9930.7	268.0	0.73	6.51	2.50	22.34	1.03	9.19
	I-III	0.11	441.1	0.37	1512.9	0.15	622.6							
ALL	0	0.72	2920.4	5.61	22683.5	0.83	3351.9	849.8	0.30	2.70	2.35	21.00	0.35	3.10
	I	0.02	88.6	0.17	687.9	0.03	101.7	349.8	0.12	1.11	0.97	8.64	0.14	1.28
	II	0.01	37.0	0.07	287.7	0.01	42.5	318.0	0.11	1.01	0.88	7.86	0.13	1.16
	III	0.02	72.2	0.14	560.5	0.02	82.8	1754.0	0.63	5.58	4.86	43.34	0.72	6.40

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 15-16/71																
II	0	861.2	116.3	170	19	12	3	65	585.0	16.6	113.4	0.74	40.5	13.25	1.79	11.46
	I-III				13	6	1	49	571.7	1.2	96.8			17.58	2.37	15.20
III	0	607.5	44.7	125	21	16	1	187	10285.0	-15.8	389.8	0.74	40.5	3.25	0.24	3.01
	I-III				5	3	2	8	4.0	4.0	12.0			75.94	5.59	70.35
IV	0	579.7	46.8	100	22	22	5	88	820.8	30.9	145.5	0.74	40.5	6.58	0.53	6.04
	I-III				6	7	2	19	54.4	3.9	33.4			31.06	2.51	28.55
VI	0	371.8	45.8	130	30	21	3	171	4757.0	32.6	308.4	0.74	40.5	2.18	0.27	1.91
	I-III				5	11	1	36	360.0	-1.9	73.9			10.33	1.27	9.06
VIII	0	367.4	107.0	115	28	29	4	174	4205.0	44.3	303.7	0.74	40.5	2.11	0.61	1.50
	I-III				14	9	3	38	168.8	11.5	63.5			9.80	2.85	6.94
ALL	0	2787.6	360.6	640	120	100	16	719	23878.2	409.8	1027.9	0.74	40.5	3.88	0.50	3.38
	I				28	17	4	104	1312.0	32.0	176.8	6.87	79.8	26.70	3.45	23.25
	II				8	10	3	25	78.0	7.1	42.4	16.04	107.2	112.63	14.57	98.06
	III				7	9	2	27	124.4	4.4	49.0	34.33	141.6	104.54	13.52	91.01
MAY 24/72																
ALL	I	2295.2	296.4	415	10	15	2	59	699.1	5.8	111.5	2.53	54.6	39.12	5.05	34.07

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 15-16/71														
II	0	0.08	305.5	0.56	2261.9	0.09	353.1	48.1	0.06	0.50	0.41	3.69	0.06	0.58
	I-III	0.06	230.3	0.42	1705.1	0.07	266.2							
III	0	0.31	1245.7	4.18	16930.4	0.33	1344.7	138.4	0.23	2.03	3.10	27.61	0.25	2.19
	I-III	0.01	53.3	0.18	724.3	0.01	57.5							
IV	0	0.15	615.5	1.88	7624.2	0.17	669.6	65.2	0.11	1.00	1.39	12.44	0.12	1.09
	I-III	0.03	130.3	0.40	1614.2	0.04	141.8							
VI	0	0.46	1855.9	3.72	15065.8	0.52	2116.6	126.2	0.34	3.03	2.75	24.57	0.39	3.45
	I-III	0.10	391.9	0.79	3181.0	0.11	446.9							
VIII	0	0.47	1916.7	1.63	6581.1	0.67	2704.2	128.8	0.35	3.13	1.20	10.73	0.49	4.41
	I-III	0.10	413.1	0.35	1418.3	0.14	582.8							
ALL	0	0.26	1043.7	1.99	8068.0	0.30	1198.7	532.0	0.19	1.70	1.48	13.16	0.22	1.96
	I	0.04	151.6	0.29	1171.7	0.04	174.1	717.2	0.26	2.30	1.99	17.74	0.30	2.64
	II	0.01	35.9	0.07	277.8	0.01	41.3	397.0	0.14	1.27	1.10	9.82	0.16	1.46
	III	0.01	38.7	0.07	299.3	0.01	44.5	915.5	0.33	2.93	2.54	22.65	0.38	3.36
MAY 24/72														
ALL	I	0.03	103.4	0.20	801.0	0.03	118.8	148.4	0.06	0.58	0.50	4.47	0.07	0.66

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 19-20/72																
II	I	265.0	34.7	53	0	0										
III	I	408.7	36.9	69	3	3						6.23	78.0			
IV	I+II	565.9	63.0	84	4	3	16	1008.0	-47.5	79.5	0.25	5.73	75.9	35.37	3.94	31.43
VI	I	590.9	85.3	114	18	2	20	0.4	19.0	21.5	0.89	3.08	62.1	29.18	4.21	24.97
VIII	I	375.9	21.3	95	5	4	25	3600.0	-95.0	145.0	0.20	3.51	64.8	15.04	0.85	14.18
ALL	I+II	2206.4	241.2	415	30	12	50	51.9	35.6	64.4	0.60	4.06	67.3	44.13	4.82	39.3

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 19-20/72														
II	I													
III	I													
IV	I+II	0.03	114.4	0.25	1027.8	0.03	128.8	91.7	0.16	1.45	1.46	12.98	0.18	1.63
VI	I	0.03	138.7	0.24	960.7	0.04	162.1	62.4	0.11	0.94	0.73	6.52	0.12	1.10
VIII	I	0.07	269.2	1.17	4750.0	0.07	285.3	87.8	0.23	2.08	4.12	36.75	0.25	2.21
ALL	I+II	0.02	91.7	0.21	838.9	0.03	103.0	203.2	0.09	0.82	0.84	7.51	0.10	0.92

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 31-AUG. 2/72																
II	0	338.7	59.0	60	7	3	12	17.2	3.9	20.6	0.57	0.33	33.1	27.65	4.82	22.83
	I+II				9	2	12	1.5	9.1	14.0	0.78			29.27	5.10	24.17
III	0	347.6	101.1	83	36	24	108	2160.0	15.0	201.0	0.33	0.33	33.1	3.22	0.94	2.28
	I+II				7	3	12	17.2	3.9	20.6	0.57			28.38	8.25	20.12
IV	0	321.8	43.8	68	8	2	11	2.0	7.9	13.5	0.75	0.33	33.1	30.17	4.11	26.06
	I+II				9	2	12	1.5	9.1	14.0	0.78			27.81	3.79	24.02
VI	0	325.4	40.3	65	24	13	52	246.0	21.0	83.7	0.46	0.33	33.1	6.21	0.77	5.44
	I+II				14	4	20	5.6	14.8	24.4	0.71			16.60	2.06	14.55
VIII	0	245.1	123.1	73	72	39	157	738.0	102.8	211.4	0.46	0.33	33.1	1.56	0.78	0.78
	I+II				14	8	33	212.9	3.5	61.9	0.43			7.50	3.77	3.73
ALL	0	1578.6	367.3	349	147	81	327	1703.6	244.9	410.0	0.45					
	I						63					0.33	33.1	4.82	1.12	3.70
	II						20					5.23	73.8	25.06	5.83	19.23
	I+II				53	19	83	54.6	67.8	97.4	0.64	19.77	116.2	78.93	18.36	60.56
														19.11	4.45	14.66

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 31-AUG. 2/72														
II	0	0.04	146.4	0.21	840.3	0.04	177.2	4.0	0.01	0.11	0.07	0.61	0.01	0.13
	I+II	0.03	138.3	0.20	793.7	0.04	167.4							
III	0	0.31	1257.4	1.07	4323.2	0.44	1773.1	35.6	0.10	0.91	0.35	3.14	0.14	1.29
	I+II	0.04	142.6	0.12	490.4	0.05	201.1							
IV	0	0.03	134.1	0.24	985.6	0.04	155.3	3.5	0.01	0.10	0.08	0.72	0.01	0.11
	I+II	0.04	145.5	0.26	1069.2	0.04	168.5							
VI	0	0.16	651.2	1.30	5258.5	0.18	743.3	17.3	0.05	0.47	0.43	3.82	0.06	0.54
	I+II	0.06	243.8	0.49	1968.3	0.07	278.2							
VIII	0	0.64	2593.8	1.28	5164.5	1.29	5211.0	51.8	0.21	1.89	0.42	3.76	0.42	3.79
	I+II	0.13	539.4	0.27	1073.9	0.27	1083.6							
ALL	0	0.21	839.4	0 89	3607.5	0.27	1093.9	108.0	0.07	0.61	0.29	2.62	0.09	0.80
	I	0.04	161.5	0.17	694.1	0.05	210.5	329.5	0.21	1.86	0.90	8.00	0.27	2.43
	II	0.01	51.3	0.05	220.4	0.02	66.8	395.4	0.25	2.23	1.08	9.60	0.33	2.91
	I+II	0.05	211.8	0.22	910.3	0.07	276.0							

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 11-13/72																
II	0	377.4	15.4	99	13	3	17	2.4	13.8	20.0	0.77	0.56	40.0	22.33	0.91	21.42
	I				4	1	5	1.0	3.3	7.3	0.75	6.76	79.4	70.76	2.89	67.88
	II				2	1	4	12.0	-2.9	10.9	0.50	35.59	140.0	94.35	3.85	90.50
III	0	420.6	19.6	107	17	13	72	5723.6	-79.1	223.6	0.24	0.56	40.0	5.82	0.27	5.55
	I				3	1	5	2.3	1.5	7.5	0.67	6.76	79.4	93.47	4.36	89.11
	II				1	0	1	0.0	1.0	1.0	1.00	35.59	140.0	420.60	19.60	401.00
IV	0	312.9	12.6	66	3	0	3	0.0	3.0	3.0	1.00	0.56	40.0	104.30	4.20	100.10
	I				4	3	16	1008.0	-47.5	79.5	0.25	6.76	79.4	19.56	0.79	18.77
VI	0	358.9	1.7	114	19	7	30	22.2	20.7	39.5	0.63	0.63	41.3	11.93	0.06	11.87
	I				7	1	8	0.3	7.1	9.3	0.86	5.53	74.3	43.95	0.21	43.74
	II				0	1										
VIII	0	335.0	94.2	92	76	39	156	539.1	109.7	202.5	0.49	0.63	41.3	2.15	0.60	1.54
	I				13	9	42	1176.4	-26.3	110.8	0.31	5.53	74.3	7.93	2.23	5.70
ALL	0	1804.8	143.5	478	128	62	248	630.6	198.0	298.5	0.52	0.61	41.0	7.27	0.58	6.69
	I				31	15	60	151.8	35.4	84.7	0.52	5.96	76.1	30.05	2.39	27.66
	II				3	2	9	180.0	-17.8	35.8	0.33	35.59	140.0	200.53	15.94	184.59

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 11-13/72														
II	0	0.04	181.2	1.10	4441.2	0.05	188.9	9.5	0.03	0.22	0.61	5.48	0.03	0.23
	I	0.01	57.2	0.35	1401.6	0.01	59.6	36.1	0.10	0.85	2.34	20.88	0.10	0.89
	II	0.01	42.9	0.26	1051.2	0.01	44.7	142.4	0.38	3.36	9.24	82.46	0.39	3.51
III	0	0.17	695.2	3.69	14918.2	0.18	729.2	40.5	0.10	0.86	2.06	18.41	0.10	0.90
	I	0.01	43.3	0.23	929.2	0.01	45.4	30.4	0.07	0.65	1.55	13.84	0.08	0.68
	II	0.00	9.6	0.05	206.5	0.00	10.1	35.6	0.08	0.75	1.82	16.20	0.09	0.79
IV	0	0.01	38.8	0.24	963.6	0.01	40.4	1.7	0.01	0.05	0.13	1.19	0.01	0.05
	I	0.05	206.9	1.27	5139.0	0.05	215.6	108.2	0.35	3.08	8.58	76.57	0.36	3.21
VI	0	0.08	339.2	17.70	71616.0	0.08	340.8	19.0	0.05	0.47	11.15	99.44	0.05	0.47
	I	0.02	92.1	4.80	19441.5	0.02	92.5	45.2	0.13	1.12	26.57	236.97	0.13	1.13
	II													
VIII	0	0.47	1885.9	1.66	6706.7	0.65	2623.6	98.3	0.29	2.62	1.04	9.31	0.41	3.64
	I	0.13	510.4	0.45	1815.1	0.18	710.1	233.6	0.70	6.22	2.48	22.12	0.97	8.65
ALL	0	0.14	556.6	1.73	7001.0	0.15	604.7	151.9	0.08	0.75	1.06	9.44	0.09	0.82
	I	0.03	134.7	0.42	1693.9	0.04	146.3	357.8	0.20	1.77	2.49	22.24	0.22	1.92
	II	0.00	20.2	0.06	253.8	0.01	21.9	320.3	0.18	1.58	2.23	19.91	0.19	1.72

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 25-28/73																
**	0	453.9	27.3	69	3	0	3	0.0	3.0	3.0	1.00	0.36	32.0	151.30	9.10	142.20
	I				2	2						5.20	72.0			
III	0	520.9	55.3	108	3	2	9	180.0	-17.8	35.8	0.33	0.36	32.4	57.88	6.14	51.73
	I				3	2	9	180.0	-17.8	35.8	0.33	5.20	78.6	57.88	6.14	51.73
IV	0	240.8	44.9	33	9	2	12	1.5	9.1	14.0	0.78	0.36	33.0	20.81	3.88	16.93
	I				0	2						5.20	76.5			
VI	0	379.4	128.5	59	42	19	77	138.8	53.1	100.3	0.55	0.36	32.2	4.95	1.68	3.27
	I				5	3	13	112.5	-8.7	33.7	0.40	5.20	73.8	30.35	10.28	20.07
VIII	0	336.3	102.4	71	5	3	13	112.5	-8.7	33.7	0.40	0.36	31.1	26.90	8.19	18.71
	I				12	1	13	0.1	12.4	13.8	0.92	5.20	69.9	25.69	7.82	17.87
ALL	0	1931.3	358.4	340	62	26	107	136.1	83.4	130.1	0.58	0.36	32.2	18.09	3.36	14.73
	I				22	10	40	74.7	23.0	57.6	0.55	5.20	72.9	47.88	8.89	39.00

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 25-28/73														
II	0	0.01	26.7	0.11	444.7	0.01	28.5	1.1	0.00	0.02	0.04	0.35	0.00	0.02
	I													
III	0	0.02	69.9	0.16	658.6	0.02	78.2	3.2	0.01	0.06	0.06	0.52	0.01	0.06
	I	0.02	69.9	0.16	658.6	0.02	78.2	46.8	0.09	0.80	0.85	7.55	0.10	0.90
IV	0	0.05	194.5	0.26	1043.0	0.06	239.0	4.2	0.02	0.15	0.09	0.83	0.02	0.19
	I													
VI	0	0.20	818.1	0.60	2415.5	0.31	1237.1	27.6	0.07	0.65	0.21	1.92	0.11	0.98
	I	0.03	133.3	0.10	393.7	0.05	201.6	65.0	0.17	1.53	0.51	4.51	0.26	2.31
VIII	0	0.04	150.4	0.12	494.0	0.05	216.3	4.5	0.01	0.12	0.04	0.39	0.02	0.17
	I	0.04	157.5	0.13	517.4	0.06	226.5	68.1	0.20	1.81	0.66	5.93	0.29	2.60
ALL	0	0.06	223.8	0.30	1205.7	0.07	274.7	38.4	0.02	0.18	0.11	0.96	0.02	0.22
	I	0.02	84.5	0.11	455.4	0.03	103.8	209.7	0.11	0.97	0.59	5.22	0.13	1.19

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 7-9/73																
II	0	333.8	25.4	63	19	2	21	0.4	20.0	22.4	0.89	0.65	38.3	15.72	1.20	14.52
	I				8	0	8	0.0	8.0	8.0	1.00	6.85	81.3	41.72	3.17	38.55
	II				2	1	4	12.0	-2.9	10.9	0.50	18.50	118.7	83.45	6.35	77.10
III	0	310.1	9.6	82	12	6	24	72.0	7.0	41.0	0.50	0.85	40.8	12.92	0.40	12.52
	I				3	4						7.48	83.6			
	II				2	1	4	12.0	-2.9	10.9	0.50	18.50	134.7	77.53	2.40	75.13
IV	0	218.9	32.8	34	36	21	86	643.5	35.7	137.1	0.42	0.87	42.9	2.53	0.38	2.15
	I				2	1	4	12.0	-2.9	10.9	0.50	12.18	105.0	54.72	8.20	46.52
VI	0	246.3	32.2	52	164	95	390	2773.6	284.5	495.1	0.42	0.69	39.5	0.63	0.08	0.55
	I				4	2	8	24.0	-1.8	17.8	0.50	5.31	74.0	30.79	4.03	26.76
VIII	0	190.1	49.3	51	137	80	329	2469.3	229.9	428.7	0.42	0.54	36.0	0.58	0.15	0.43
	I				11	1	12	0.1	11.3	12.9	0.91	5.62	75.5	15.71	4.07	11.64
ALL	0	1299.2	149.3	282	368	204	826	4456.3	692.2	959.3	0.45	0.65	38.5	1.57	0.18	1.39
	I				28	8	39	11.3	32.5	45.9	0.71	6.75	80.6	33.14	3.81	29.33
	II				4	2	8	24.0	-1.8	17.8	0.50	18.50	126.7	162.40	18.66	143.74

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 7-9/73														
II	0	0.06	257.5	0.84	3383.4	0.07	278.7	13.8	0.04	0.37	0.54	4.83	0.04	0.40
	I	0.02	97.0	0.31	1274.6	0.03	105.0	54.8	0.16	1.46	2.16	19.25	0.18	1.59
	II	0.01	48.5	0.16	637.3	0.01	52.5	74.0	0.22	1.98	2.91	25.99	0.24	2.14
III	0	0.08	313.2	2.50	10117.5	0.08	323.2	20.3	0.07	0.59	2.12	18.90	0.07	0.60
	I													
	II	0.01	52.2	0.42	1686.3	0.01	53.9	74.0	0.24	2.13	7.71	68.76	0.25	2.20
IV	0	0.39	1597.4	2.63	10660.4	0.46	1878.9	75.3	0.34	3.07	2.29	20.47	0.40	3.61
	I	0.02	74.0	0.12	493.5	0.02	87.0	48.7	0.22	1.99	1.49	13.25	0.26	2.34
VI	0	1.58	6404.8	12.11	48991.0	1.82	7368.1	270.1	1.10	9.78	8.39	74.82	1.26	11.25
	I	0.03	131.4	0.25	1005.5	0.04	151.2	42.5	0.17	1.54	1.32	11.77	0.20	1.77
VIII	0	1.73	7010.0	6.68	27030.4	2.34	9464.5	176.3	0.93	8.27	3.58	31.90	1.25	11.17
	I	0.06	257.6	0.25	993.3	0.09	347.8	68.0	0.36	3.19	1.38	12.30	0.48	4.31
ALL	0	0.64	2572.2	5.53	22383.4	0.72	2906.2	540.1	0.42	3.71	3.62	32.27	0.47	4.19
	I	0.03	122.1	0.26	1062.6	0.03	138.0	264.6	0.20	1.82	1.77	15.81	0.23	2.05
	II	0.01	24.9	0.05	216.9	0.01	28.2	148.0	0.11	1.02	0.99	8.84	0.13	1.15

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 10-13/73																
II	0	286.9	18.4	67	7	3	12	17.2	3.9	20.6	0.57	1.03	49.7	23.42	1.50	21.92
	I				3	1	5	2.3	1.5	7.5	0.67	5.76	85.8	63.76	4.09	59.67
	II				6	0	6	0.0	6.0	6.0	1.00	13.29	109.2	47.82	3.07	44.75
III	0	298.6	11.1	82	13	1	14	0.1	13.4	14.8	0.92	1.94	59.4	21.20	0.79	20.41
	I				3	2	9	180.0	-17.8	35.8	0.33	7.84	93.6	33.18	1.23	31.94
	II				1	1						15.00	122.0			
	III				1	0	1	0.0	1.0	1.0	1.00	50.00	168.0	298.60	11.10	287.50
IV	0	289.3	10.2	44	44	23	92	352.8	54.6	129.8	0.48	0.99	49.2	3.14	0.11	3.03
	I				1	0	1	0.0	1.0	1.0	1.00	3.13	72.0	289.30	10.20	279.10
V	0	193.1	64.2	38	68	36	145	594.4	95.7	193.3	0.47	0.79	45.8	1.34	0.44	0.89
VI	0	114.4	0.0	52	46	22	88	209.9	59.2	117.1	0.52	0.85	44.6	1.30	0.00	1.30
	I				1	2						4.62	83.5			
	II				0	1						25.72	120.0			
VIII	0	180.1	48.3	52	130	53	219	247.1	188.0	250.9	0.59	0.67	42.1	0.82	0.22	0.60
	I				2	1	4	12.0	-2.9	10.9	0.50	4.04	79.7	45.03	12.07	32.95
	II				1	0	1	0.0	1.0	1.0	1.00	10.80	100.0	180.10	48.30	131.80
ALL	0	1362.4	152.2	335	308	138	558	964.7	495.9	620.1	0.55	0.82	45.1	2.44	0.27	2.17
	I				10	6	25	225.0	-5.0	55.0	0.40	5.71	85.8	54.50	6.09	48.41
	II				8	2	11	2.0	7.9	13.5	0.75	14.63	111.9	127.72	14.27	113.46
	III				1	0	1	0.0	1.0	1.0	1.00	50.00	168.0	1362.40	152.20	1210.20

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 10-13/73														
II	0	0.04	172.8	0.67	2694.3	0.05	184.6	12.6	0.04	0.39	0.69	6.12	0.05	0.42
	I	0.02	63.5	0.24	989.8	0.02	67.8	25.9	0.09	0.81	1.41	12.57	0.10	0.86
	II	0.02	84.6	0.33	1319.7	0.02	90.4	79.7	0.28	2.48	4.33	38.66	0.30	2.65
III	0	0.05	190.9	1.27	5134.7	0.05	198.2	27.3	0.09	0.81	2.46	21.91	0.09	0.85
	I	0.03	122.0	0.81	3281.4	0.03	126.7	70.6	0.24	2.11	6.36	56.71	0.25	2.19
	II													
	III	0.00	13.6	0.09	364.6	0.00	14.1	50.0	0.17	1.49	4.50	40.18	0.17	1.55
IV	0	0.32	1289.6	9.04	36577.9	0.33	1336.8	91.6	0.32	2.83	8.98	80.14	0.33	2.93
	I	0.00	14.0	0.10	396.8	0.00	14.5	3.1	0.01	0.10	0.31	2.74	0.01	0.10
V	0	0.75	3028.4	2.25	9108.9	1.12	4536.8	113.4	0.59	5.24	1.77	15.76	0.88	7.85
VI	0	0.77	3119.0	0.00	0.0	0.77	3119.0	74.8	0.65	5.83	0.00	0.00	0.65	5.83
	I													
	II													
VIII	0	1.22	4931.9	4.54	18390.0	1.67	6739.3	146.9	0.82	7.28	3.04	27.13	1.11	9.94
	I	0.02	89.9	0.08	335.2	0.03	122.8	16.2	0.09	0.80	0.33	2.99	0.12	1.09
	II	0.01	22.5	0.02	83.8	0.01	30.7	10.8	0.06	0.53	0.22	1.99	0.08	0.73
ALL	0	0.41	1657.6	3.67	14837.8	0.46	1866.1	457.7	0.34	3.00	3.01	26.83	0.38	3.37
	I	0.02	74.3	0.16	664.8	0.02	83.6	142.8	0.10	0.93	0.94	8.37	0.12	1.05
	II	0.01	31.7	0.07	283.6	0.01	35.7	156.0	0.11	1.02	1.03	9.14	0.13	1.15
	III	0.00	3.0	0.01	26.6	0.00	3.3	50.0	0.04	0.33	0.33	2.93	0.04	0.37

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 21-JUNE 1/74 ALL	I	2227.1	548.5	347	19	11	45	319.9	9.4	80.9	0.42	1.56	55.6	49.35	12.16	37.20

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 21-JUNE 1/74 ALL	I	0.02	82.0	0.08	332.9	0.03	108.8	70.6	0.03	0.28	0.13	1.15	0.04	0.38

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 23-25/74																
II	0	515.7	50.2	71	1	1										
	I				5	3	13	112.5	-8.7	33.7	0.40	0.33	34.6			
	II				2	1	4	12.0	-2.9	10.9	0.50	5.68	81.0	41.26	4.02	37.24
	III				0	2						19.51	126.7	128.93	12.55	116.38
III	0	304.3	61.7	61	1	1						31.58	148.5			
	I				3	4						0.44	34.6			
	II				0	3						4.79	81.0			
IV	0	281.1	62.5	35	6	6						17.27	130.3			
	I				3	2	9	180.0	-17.8	35.8	0.33	0.35	34.6			
V	0	283.5	84.1	44	101	60	249	2092.4	157.3	340.3	0.41	3.95	81.0	31.23	6.94	24.29
	I				6	0	6	0.0	6.0	6.0	1.00	0.34	35.0	1.14	0.34	0.80
	III				1	0	1	0.0	1.0	1.0	1.00	3.83	73.2	47.25	14.02	33.23
VI	0	364.2	78.6	52	83	40	160	396.6	120.4	200.0	0.52	53.75	177.0	283.50	84.10	199.40
	I				9	3	14	6.8	8.3	18.7	0.67	0.29	33.8	2.27	0.49	1.78
VIII	0	449.2	147.2	80	41	29	140	4772.4	1.9	278.2	0.29	3.92	73.7	26.98	5.82	21.16
	I				9	5	20	110.7	-0.8	41.3	0.44	0.31	34.0	3.21	1.05	2.16
ALL	0	2198.0	484.3	343	233	137	566	4438.8	432.3	698.8	0.41	3.21	68.8	22.18	7.27	14.91
	I				35	17	68	175.4	41.6	94.5	0.51	0.32	34.4	3.89	0.86	3.03
	II				2	4						4.11	75.1	32.30	7.12	25.18
	III				1	2						18.39	128.5			
												38.97	158.0			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 23-25/74														
II	0													
	I	0.02	98.1	0.25	1007.7	0.03	108.7	71.0	0.14	1.23	1.41	12.61	0.15	1.36
	II	0.01	31.4	0.08	322.5	0.01	34.8	79.0	0.15	1.35	1.55	13.87	0.17	1.50
	III													
III	0													
	I													
	II													
IV	0													
	I	0.03	129.6	0.14	582.8	0.04	166.6	35.5	0.13	1.13	0.57	5.07	0.16	1.45
V	0	0.88	3551.7	2.96	11972.8	1.25	5049.7	84.7	0.30	2.66	1.01	8.98	0.42	3.79
	I	0.02	85.7	0.07	288.7	0.03	121.8	23.0	0.08	0.72	0.27	2.44	0.12	1.03
	III	0.00	14.3	0.01	48.1	0.01	20.3	53.8	0.19	1.69	0.64	5.70	0.27	2.40
VI	0	0.44	1780.3	2.04	8249.0	0.56	2270.2	46.1	0.13	1.13	0.59	5.23	0.16	1.44
	I	0.04	150.0	0.17	695.1	0.05	191.3	52.9	0.15	1.29	0.67	6.00	0.19	1.65
VIII	0	0.31	1262.1	0.95	3851.3	0.46	1877.2	43.1	0.10	0.86	0.29	2.61	0.14	1.27
	I	0.05	182.4	0.14	556.7	0.07	271.4	65.1	0.14	1.29	0.44	3.94	0.22	1.92
ALL	0	0.26	1041.2	1.17	4725.6	0.33	1335.5	179.5	0.08	0.73	0.37	3.31	0.10	0.93
	I	0.03	125.3	0.14	568.7	0.04	160.7	279.6	0.13	1.13	0.58	5.15	0.16	1.46
	II													
	III													

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 16/74																
II	0	380.8	8.9	71	2	0	2	0.0	2.0	2.0	1.00	0.56	40.0	190.40	4.45	185.95
	I				0	2						4.86	77.5			
	II				2	1	4	12.0	-2.9	10.9	0.50	15.11	116.3	95.20	2.22	92.97

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 16/74														
II	0	0.01	21.3	0.22	909.4	0.01	21.8	1.1	0.00	0.03	0.13	1.13	0.00	0.03
	I													
	II	0.01	42.5	0.45	1818.9	0.01	43.5	60.4	0.16	1.42	6.79	60.59	0.16	1.45

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 16-19/74																
II	0	375.3	21.3	70	4	0	4	0.0	4.0	4.0	1.00	1.52	53.3	93.82	5.32	88.50
	I				6	2	9	4.5	4.8	13.2	0.67	7.79	85.2	41.70	2.37	39.33
	II				0	1						18.07	125.0			
III	0	218.3	28.3	63	3	1	5	2.3	1.5	7.5	0 67	1.95	53.3	48.51	6.29	42.22
	I				7	2	10	2.8	6.4	13.2	0.71	6.50	85.2	22.28	2.89	19.39
	II				2	1	4	12.0	-2.9	10.9	0.50	18.07	125.0	54.58	7.07	47.50
IV	0	247.6	18.7	34	12	1	13	0.1	12.4	13 8	0.92	1.52	53.3	18.91	1.43	17.49
	I				3	3						5.33	85.2			
V	0	191.6	58.9	45	122	36	173	55.7	158.1	188.0	0.70	0.71	41.8	1.11	0.34	0.77
	I				4	0	4	0.0	4.0	4.0	1.00	5.54	82.7	47.90	14.73	33.18
VI	0	215.9	13.3	56	58	17	82	25.8	71.9	92.2	0.71	0.69	41.8	2.63	0.16	2.47
	I				9	0	9	0.0	9.0	9.0	1.00	4.84	78.3	23.99	1.48	22.51
	III				1	0	1	0.0	1.0	1.0	1.00	30.50	141.0	215.90	13.30	202.60
VIII	0	172.7	82.4	55	61	24	101	97.2	80.8	120.3	0.61	0.98	46.2	1.72	0.82	0.90
	I				7	2	10	2.8	6.4	13.2	0.71	4.55	77.1	17.62	8.41	9.21
	II				1	1						19.16	126.5			
ALL	0	1421.4	222.9	323	260	79	373	133 3	350.4	396.6	0.70	0.83	43.6	3.81	0.60	3.21
	I				36	9	48	8.9	42.0	54.0	0.75	5.77	82.0	29.61	4.64	24.97
	II				3	3						18.43	125.5			
	III				1	0	1	0.0	1.0	1.0	1.00	30.50	141.0	1421.40	222.90	1198.50

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 16-19/74														
II	0	0.01	43 1	0.19	760.0	0.01	45.7	6.1	0.02	0.14	0.28	2.54	0.02	0.15
	I	0.02	97.1	0.42	1710.0	0.03	102.9	70.1	0.19	1.67	3.29	29.36	0.20	1.77
	II													
III	0	0.02	83.4	0.16	643.5	0.02	95.8	8.8	0.04	0.36	0.31	2.77	0.05	0.41
	I	0.04	181.7	0.35	1401.4	0.05	208.7	63.7	0.29	2.60	2.25	20.08	0.34	2.99
	II	0.02	74.2	0.14	572.0	0.02	85.2	72.3	0.33	2.95	2.55	22.78	0.38	3.39
IV	0	0.05	214.0	0.70	2833.1	0.06	231.5	20.0	0.08	0.72	1.07	9.52	0.09	0.78
	I													
V	0	0.90	3655.6	2.94	11891.6	1.30	5278.2	122.8	0.64	5.72	2.09	18.60	0.93	8.26
	I	0.02	84.5	0.07	274.8	0.03	122.0	22.2	0.12	1.03	0.38	3.36	0.17	1.49
VI	0	0.38	1538.0	6.17	24966.3	0.40	1639.0	56.8	0.26	2.35	4.27	38.10	0.28	2.50
	I	0.04	168.7	0.68	2738 6	0.04	179.8	43.5	0.20	1.80	3.27	29.20	0.21	1.92
	III	0.00	18.7	0.08	304 3	0.00	20.0	30.5	0.14	1.26	2.29	20.46	0.15	1.34
VIII	0	0.58	2356 7	1.22	4939.3	1.11	4507.2	98.1	0.57	5.07	1.19	10.62	1.09	9.69
	I	0.06	229.7	0.12	481 3	0.11	439.2	44.6	0.26	2.31	0.54	4.83	0.49	4.41
	II													
ALL	0	0.26	1063.4	1.68	6781 0	0.31	1261 1	309.2	0.22	1.94	1.39	12.37	0.26	2.30
	I	0.03	136.7	0 22	871 5	0.04	162.1	276.8	0.19	1.74	1.24	11.08	0.23	2.06
	II													
	III	0.00	2.8	0.00	18 2	0.00	3 4	30.5	0.02	0.19	0.14	1.22	0.03	0.23

Appendix table II (cont'd)

APPENDIX CARNATION CREEK RAINBOW

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 20-22/75 ALL	I	2241.4	746.7	335	12	4	18	9.0	12.0	24.0	0.67	1.55	53.7	124.52	41.48	83.04

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 20-22/75 ALL	I	0.01	32.5	0.02	97.6	0.01	48.7	27.9	0.01	0.11	0.04	0.33	0.02	0.17

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 21-24/75																
II	0	371.9	39.5	78	3	2	9	180.0	-17.8	35.8	0.33	0.57	39.7	41.32	4.39	36.93
	I				0	2						8.29	93.0			
	II				2	1	4	12.0	-2.9	10.9	0.50	15.87	112.6	92.97	9.88	83.10
III	0	253.4	17.1	57	28	5	34	2.3	31.0	37.1	0.82	0.62	39.7	7.43	0.50	6.93
IV	0	217.8	32.3	46	122	25	153	15.4	145.6	161.3	0.80	0.48	39.7	1.42	0.21	1.21
	I				5	3	13	112.5	-8.7	33.7	0.40	5.12	78.1	17.42	2.58	14.84
	II				1	0	1	0.0	1.0	1.0	1.00	13.89	111.0	217.80	32.30	185.50
V	0	259.8	42.0	50	126	32	169	32.9	157.4	180.4	0.75	0.48	38.4	1.54	0.25	1.29
	I				2	0	2	0.0	2.0	2.0	1.00	8.93	95.5	129.90	21.00	108.90
	II				1	0	1	0.0	1.0	1.0	1.00	10.84	102.0	259.80	42.00	217.80
VI	0	250.2	19.3	52	84	31	133	98.8	113.2	153.0	0.63	0.35	34.4	1.88	0.14	1.73
	I				11	0	11	0.0	11.0	11.0	1.00	4.23	73.7	22.75	1.75	20.99
	II				3	0	3	0.0	3.0	3.0	1.00	9.95	99.0	83.40	6.43	76.97
VIII	0	177.9	87.6	51	105	43	178	204.2	149.2	206.4	0.59	0.36	34.4	1.00	0.49	0.51
	I				3	5						3.27	67.5			
	II				0	1						12.13	106.0			
ALL	0	1531.0	237.8	334	468	138	664	213.1	634.5	692.9	0.71	0.43	37.1	2.31	0.36	1.95
	I				21	10	40	93.4	20.8	59.4	0.52	4.78	75.9	38.19	5.93	32.26
	II				7	2	10	2.8	6.4	13.2	0.71	12.70	106.0	156.22	24.27	131.96

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 21-24/75														
II	0	0.02	97.9	0.23	922.1	0.03	109.6	5.2	0.01	0.12	0.13	1.17	0.02	0.14
	I													
	II	0.01	43.5	0.10	409.8	0.01	48.7	63.5	0.17	1.52	1.61	14.33	0.19	1.70
III	0	0.13	544.4	1.99	8067.2	0.14	583.8	21.0	0.08	0.74	1.23	10.94	0.09	0.79
IV	0	0.70	2851.2	4.75	19225.5	0.83	3347.6	72.9	0.33	2.99	2.26	20.13	0.39	3.51
	I	0.06	232.3	0.39	1566.2	0.07	272.7	64.0	0.29	2.62	1.98	17.68	0.35	3.08
	II	0.00	18.6	0.03	125.3	0.01	21.8	13.9	0.06	0.57	0.43	3.84	0.07	0.67
V	0	0.65	2630.9	4.02	16274.1	0.78	3138.3	81.3	0.31	2.79	1.94	17.27	0.37	3.33
	I	0.01	31.2	0.05	192.7	0.01	37.2	17.9	0.07	0.61	0.43	3.79	0.08	0.73
	II	0.00	15.6	0.02	96.4	0.00	18.6	10.8	0.04	0.37	0.26	2.30	0.05	0.44
VI	0	0.53	2153.4	6.90	27916.3	0.58	2333.4	46.4	0.19	1.66	2.41	21.46	0.20	1.79
	I	0.04	177.9	0.57	2306.6	0.05	192.8	46.5	0.19	1.66	2.41	21.49	0.20	1.80
	II	0.01	48.5	0.16	629.1	0.01	52.6	29.8	0.12	1.06	1.55	13.79	0.13	1.15
VIII	0	1.00	4045.2	2.03	8215.2	1.97	7969.5	63.5	0.36	3.18	0.72	6.46	0.70	6.27
	I													
	II													
ALL	0	0.43	1754.4	2.79	11295.3	0.51	2077.0	286.9	0.19	1.67	1.21	10.76	0.22	1.98
	I	0.03	106.0	0.17	682.3	0.03	125.5	191.5	0.13	1.12	0.81	7.18	0.15	1.32
	II	0.01	25.9	0.04	166.8	0.01	30.7	124.4	0.08	0.73	0.52	4.67	0.10	0.86

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 16-18/75																
II	0	394.1	27.4	73	17	2	19	0.4	17.9	20.6	0.88	1.67	51.4	20.46	1.42	19.03
	I				2	1	4	12.0	-2.9	10.9	0.50	7.91	91.3	98.53	6.85	91.68
	II				0	2						13.89	112.0			
III	0	246.2	11.9	55	21	6	29	8.5	23.6	35.2	0.71	1.04	51.4	8.37	0.40	7.97
	I				2	0	2	0.0	2.0	2.0	1.00	11.04	103.5	123.10	5.95	117.15
	II				1	0	1	0.0	1.0	1.0	1.00	14.59	114.0	246.20	11.90	234.30
IV	0	292.0	59.3	45	33	10	47	16.7	39.2	55.5	0.70	1.36	51.4	6.17	1.25	4.91
	I				2	0	2	0.0	2.0	2.0	1.00	7.52	90.5	146.00	29.65	116.35
V	0	259.0	49.7	50	66	10	78	3.4	74.1	81.5	0.85	1.17	49.5	3.33	0.64	2.69
	I				2	0	2	0.0	2.0	2.0	1.00	4.68	78.0	129.50	24.85	104.65
	II				1	0	1	0.0	1.0	1.0	1.00	13.71	111.0	259.00	49.70	209.30
VI	0	265.0	21.8	52	51	16	74	29.7	63.4	85.2	0.69	0.85	44.5	3.57	0.29	3.27
	I				13	1	14	0.1	13.4	14.8	0.92	5.34	80.6	18.82	1.55	17.27
	II				1	2						13.54	110.3			
VIII	0	183.4	83.0	52	50	10	63	5.9	57.7	67.3	0.80	0.86	44.4	2.93	1.33	1.61
	I				10	5	20	60.0	4.5	35.5	0.50	5.60	81.9	9.17	4.15	5.02
ALL	0	1639.7	253.1	327	238	54	308	42.1	294.9	320.8	0.77	1.08	47.9	5.33	0.82	4.50
	I				31	7	40	5.4	35.4	44.7	0.77	6.03	83.5	40.95	6.32	34.63
	II				3	4						13.81	111.4			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 16-18/75														
II	0	0.05	197.8	0.70	2845.7	0.05	212.6	32.2	0.08	0.73	1.17	10.47	0.09	0.78
	I	0.01	41.1	0.15	590.8	0.01	44.1	31.6	0.08	0.72	1.16	10.30	0.09	0.77
	II													
III	0	0.12	483.3	2.47	9998.5	0.13	507.8	30.4	0.12	1.10	2.56	22.82	0.13	1.16
	I	0.01	32.9	0.17	680.2	0.01	34.5	22.1	0.09	0.80	1.86	16.55	0.09	0.84
	II	0.00	16.4	0.08	340.1	0.00	17.3	14.6	0.06	0.53	1.23	10.94	0.06	0.56
IV	0	0.16	656.2	0.80	3231.3	0.20	823.4	64.6	0.22	1.97	1.09	9.71	0.28	2.48
	I	0.01	27.7	0.03	136.5	0.01	34.8	15.0	0.05	0.46	0.25	2.26	0.06	0.58
V	0	0.30	1215.4	1.57	6334.0	0.37	1504.1	91.2	0.35	3.14	1.84	16.37	0.44	3.89
	I	0.01	31.3	0.04	162.9	0.01	38.7	9.4	0.04	0.32	0.19	1.68	0.04	0.40
	II	0.00	15.6	0.02	81.4	0.00	19.3	13.7	0.05	0.47	0.28	2.46	0.07	0.58
VI	0	0.28	1134.9	3.41	13795.9	0.31	1236.6	62.9	0.24	2.12	2.89	25.75	0.26	2.31
	I	0.05	215.1	0.65	2614.5	0.06	234.4	75.3	0.28	2.53	3.45	30.79	0.31	2.76
	II													
VIII	0	0.34	1379.2	0.75	3047.4	0.62	2519.3	53.5	0.29	2.60	0.65	5.75	0.53	4.76
	I	0.11	441.3	0.24	975.2	0.20	806.2	111.9	0.61	5.44	1.35	12.03	1.11	9.95
ALL	0	0.19	759.8	1.22	4922.4	0.22	898.5	332.7	0.20	1.81	1.31	11.73	0.24	2.14
	I	0.02	98.8	0.16	640.3	0.03	116.9	241.3	0.15	1.31	0.95	8.50	0.17	1.55
	II													

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 18-20/76 ALL	I	2140.3	530.9	326	53	15	74	20.6	64.8	83.0	0.72	2.04	59.2	28.95	7.18	21.77

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 18-20/76 ALL	I	0.03	139.8	0.14	563.5	0.05	185.9	150.5	0.07	0.63	0.28	2.53	0.09	0.83

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 13-15/76																
II	0	405.6	41.1	73	239	68	334	94.8	314.6	353.5	0.72	0.22	33.6	1.21	0.12	1.09
	I				6	1	7	0.4	5.9	8.5	0.83	4.82	78.6	56.33	5.71	50.63
	II				2	0	2	0.0	2.0	2.0	1.00	12.85	112.0	202.80	20.55	182.25
III	0	359.3	89.4	55	114	32	158	43.0	145.4	171.6	0.72	0.40	37.8	2.27	0.56	1.70
	I				3	1	5	2.3	1.5	7.5	0.67	6.65	82.7	79.84	19.87	59.98
	II				3	0	3	0.0	3.0	3.0	1.00	10.82	101.0	119.77	29.80	89.97
	III				0	1						20.77	135.0			
IV	0	265.6	87.0	36	25	6	33	5.4	28.3	37.5	0.76	0.24	34.0	8.07	2.64	5.43
	I				7	5	25	918.8	-36.1	85.1	0.29	4.60	77.0	10.84	3.55	7.29
V	0	272.7	58.9	47	132	67	268	872.0	209.0	327.1	0.49	0.20	33.1	1.02	0.22	0.80
	I				4	2	8	24.0	-1.8	17.8	0.50	4.05	73.8	34.09	7.36	26.73
VI	I	412.3	60.5	55	14	2	16	0.6	14.8	17.9	0.86	4.83	82.8	25.24	3.70	21.54
	II				0	1						12.52	112.0			
VIII	I	312.8	156.1	60	5	3	13	112.5	-8.7	33.7	0.40	3.88	72.5	25.02	12.49	12.54
	II				1	0	1	0.0	1.0	1.0	1.00	7.13	91.0	312.80	156.10	156.70
ALL	0	2028.3	493.0	326	510	173	772	412.2	731.2	812.4	0.66	0.25	34.4	2.63	0.64	1.99
	I				39	14	61	40.4	48.1	73.6	0.64	4.68	78.4	33.34	8.10	25.24
	II				6	1	7	0.4	5.9	8.5	0.83	11.12	104.3	281.71	68.47	213.24
	III				0	1						20.77	135.0			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 13-15/76														
II	0	0.82	3333.0	8.13	32892.1	0.92	3708.8	72.6	0.18	1.60	1.77	15.75	0.20	1.78
	I	0.02	71.8	0.18	709.0	0.02	79.9	34.7	0.09	0.76	0.84	7.53	0.10	0.85
	II	0.00	20.0	0.05	196.9	0.01	22.2	25.7	0.06	0.57	0.63	5.58	0.07	0.63
III	0	0.44	1785.1	1.77	7174.5	0.59	2376.4	63.3	0.18	1.57	0.71	6.32	0.23	2.09
	I	0.01	50.7	0.05	203.7	0.02	67.5	29.9	0.08	0.74	0.33	2.99	0.11	0.99
	II	0.01	33.8	0.03	135.8	0.01	45.0	32.5	0.09	0.81	0.36	3.24	0.12	1.07
	III													
IV	0	0.12	501.2	0.38	1530.2	0.18	745.4	7.8	0.03	0.26	0.09	0.80	0.04	0.39
	I	0.09	373.3	0.28	1139.7	0.14	555.2	112.7	0.42	3.78	1.30	11.55	0.63	5.63
V	0	0.98	3978.2	4.55	18418.4	1.25	5074.1	53.2	0.20	1.74	0.90	8.05	0.25	2.22
	I	0.03	118.7	0.14	549.7	0.04	151.4	32.4	0.12	1.06	0.55	4.91	0.15	1.35
VI	I	0.04	160.3	0.27	1092.6	0.05	187.9	78.9	0.19	1.71	1.30	11.63	0.22	2.00
	II													
VIII	I	0.04	161.7	0.08	324.1	0.08	322.8	48.6	0.16	1.38	0.31	2.77	0.31	2.76
	II	0.00	12.9	0.01	25.9	0.01	25.8	7.1	0.02	0.20	0.05	0.41	0.05	0.41
ALL	0	0.38	1540.0	1.57	6335.7	0.50	2034.5	194.2	0.10	0.85	0.39	3.51	0.13	1.13
	I	0.03	121.4	0.12	499.4	0.04	160.4	284.9	0.14	1.25	0.58	5.16	0.19	1.66
	II	0.00	14.4	0.01	59.1	0.00	19.0	80.0	0.04	0.35	0.16	1.45	0.05	0.47
	III													

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 20-23/76																
II	0	370.9	24.7	73	82	17	103	10.8	96.9	110.0	0.79	0.76	43.9	3.59	0.24	3.35
	I				1	0	1	0.0	1.0	1.0	1.00	7.74	93.0	370.90	24.70	346.20
	II				0	1						28.10	142.0			
III	0	358.2	28.6	55	30	12	50	51.9	35.6	64.4	0.60	1.40	53.4	7.16	0.57	6.59
	I				1	0	1	0.0	1.0	1.0	1.00	9.26	99.0	358.20	28.60	329.60
IV	0	262.0	68.7	38	41	9	53	6.5	47.4	57.6	0.78	1.05	48.2	4.99	1.31	3.68
	I				4	1	5	1.0	3.3	7.3	0.75	5.61	84.6	49.13	12.88	36.24
V	0	256.8	66.0	48	77	15	96	8.3	89.9	101.4	0.81	0.79	44.3	2.69	0.69	2.00
	I				1	1						5.34	81.5			
	II				1	0	1	0.0	1.0	1.0	1.00	20.84	129.0	256.80	66.00	190.80
VI	0	388.5	78.7	53	2	1	4	12.0	-2.9	10.9	0.50	0.88	55.0	97.13	19.67	77.45
	I				12	5	21	25.5	10.5	30.7	0.58	5.93	84.5	18.89	3.83	15.06
	II				0	3						11.45	106.0			
VIII	0	288.3	110.8	62	8	3	13	10.1	6.4	19.2	0.63	1.41	55.9	22.52	8.66	13.87
	I				7	1	8	0.3	7.1	9.3	0.86	5.30	81.4	35.30	13.57	21.73
ALL	0	1924.7	377.5	329	240	57	315	49 6	300.7	328.8	0.76	0.93	46.6	6.11	1.20	4.92
	I				26	8	38	14.0	30.1	45.0	0.69	5.85	84.3	51.25	10.05	41.20
	II				1	4						16.66	117.8			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 20-23/76														
II	0	0.28	1128.7	4.19	16949.3	0.30	1209.3	78.5	0.21	1.89	3.18	28.35	0.23	2.02
	I	0.00	10.9	0.04	163.8	0.00	11.7	7.7	0.02	0.19	0.31	2.79	0.02	0.20
	II													
III	0	0.14	564.9	1.75	7075.2	0.15	613.9	70.0	0.20	1.74	2.45	21.84	0.21	1.90
	I	0.00	11.3	0.03	141.5	0.00	12.3	9.3	0.03	0.23	0.32	2.89	0.03	0.25
IV	0	0.20	811.4	0.76	3094.5	0.27	1099.8	55.2	0.21	1.88	0.80	7.17	0.29	2.55
	I	0.02	82.4	0.08	314.2	0.03	111.7	29.9	0.11	1.02	0.44	3.89	0.15	1.38
V	0	0.37	1507.1	1.45	5863.8	0.50	2028.4	75.6	0.29	2.62	1.14	10.21	0.40	3.53
	I													
	II	0.00	15.8	0.02	61.3	0.01	21.2	20.8	0.08	0.72	0.32	2.82	0.11	0.97
VI	0	0.01	41.7	0.05	205.7	0.01	52.3	3.5	0.01	0.08	0.04	0.40	0.01	0.10
	I	0.05	214.3	0.26	1057.8	0.07	268.7	121.9	0.31	2.80	1.55	13.82	0.39	3.51
	II													
VIII	0	0.04	179.7	0.12	467.5	0.07	291.8	18.0	0.06	0.56	0.16	1.45	0.10	0.90
	I	0.03	114.6	0.07	298.3	0.05	186.2	43.3	0.15	1.34	0.39	3.49	0.24	2.18
ALL	0	0.16	661.8	0.83	3374.3	0.20	823.3	293.9	0.15	1.36	0.78	6.94	0.19	1.69
	I	0.02	79.0	0.10	402.6	0.02	98.2	219.7	0.11	1.02	0.58	5.19	0.14	1.27
	II													

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 16-19/77																
ALL	I	2242.1	495.1	363	16	8	32	96.0	12.4	51.6	0.50	3.05	68.0	70.07	15.47	54.59
	II				2	3						8.77	97.2			
JULY 19-21/77																
ALL	O	2319.1	442.3	355	19	3	23	1.1	20.5	24.7	0.84	0.90	44.7	102.79	19.60	83.18
	I				18	4	23	3.0	19.7	26.6	0.78	6.55	85.0	100.21	19.11	81.10
	II				8	5	21	256.8	-10.7	53.4	0.38	11.11	102.3	108.71	20.73	87.98
SEP. 26-29/77																
ALL	O	2346.9	489.1	357	21	10	40	93.4	20.8	59.4	0.52	2.20	59.9	58.54	12.20	46.34
	I				9	6	27	540.0	-19.5	73.5	0.33	9.87	94.9	86.92	18.11	68.81
	II				11	7	30	416.9	-10.6	71.1	0.36	13.42	108.4	77.58	16.17	61.41

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 16-19/77														
ALL	I	0.01	57.8	0.06	261.6	0.02	74.1	97.5	0.04	0.39	0.20	1.76	0.06	0.50
	II													
JULY 19-21/77														
ALL	O	0.01	39.4	0.05	206.4	0.01	48.7	20.4	0.01	0.08	0.05	0.41	0.01	0.10
	I	0.01	40.4	0.05	211.8	0.01	49.9	151.7	0.07	0.58	0.34	3.06	0.08	0.72
	II	0.01	37.2	0.05	195.2	0.01	46.0	237.1	0.10	0.91	0.54	4.78	0.13	1.13
SEP. 26-29/7/														
ALL	O	0.02	69.1	0.08	331.7	0.02	87.3	88.1	0.04	0.33	0.18	1.61	0.05	0.42
	I	0.01	46.6	0.06	223.4	0.01	58.8	266.4	0.11	1.01	0.54	4.86	0.14	1.28
	II	0.01	52.2	0.06	250.3	0.02	65.9	405.9	0.17	1.54	0.83	7.40	0.22	1.95

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 5-8/78																
ALL	0	2282.9	510.1	358	0	1						1.72	55.0			
	I				12	1	13	0.1	12.4	13.8	0.92	5.67	81.5	174.39	38.97	135.42
	II				4	1	5	1.0	3.3	7.3	0.75	15.44	114.4	428.04	95.64	332.40
JULY 25-27/78																
ALL	0	1974.0	277.4	362	50	6	57	1.3	54.5	59.1	0.88	1.06	47.6	34.74	4.88	29.86
	I				18	5	25	6.5	19.8	30.0	0.72	7.59	92.3	79.20	11.13	68.07
	II				5	1	6	0.6	4.7	7.8	0.80	16.45	119.0	315.84	44.38	271.46
SEP 20-OCT. 5/78																
ALL	0	2551.6	711.4	361	14	2	16	0.6	14.8	17.9	0.86	2.45	63.7	156.22	43.56	112.67
	I				10	1	11	0.2	10.3	11.9	0.90	11.56	106.6	229.64	64.03	165.62
	II				5	2	8	8.6	2.5	14.2	0.60	21.28	129.5	306.19	85.37	220.82
	III				1	0	1	0.0	1.0	1.0	1.00	47.16	169.0	2551.60	711.40	1840.20

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 5-8/78														
ALL	0													
	I	0.01	23.2	0.03	103.9	0.01	29.9	74.2	0.03	0.29	0.15	1.30	0.04	0.37
	II	0.00	9.5	0.01	42.3	0.00	12.2	82.3	0.04	0.32	0.16	1.44	0.05	0.41
JULY 25-27/78														
ALL	0	0.03	116.5	0.20	828.9	0.03	135.5	60.2	0.03	0.27	0.22	1.93	0.04	0.32
	I	0.01	51.1	0.09	363.6	0.01	59.5	189.2	0.10	0.85	0.68	6.08	0.11	0.99
	II	0.00	12.8	0.02	91.2	0.00	14.9	102.8	0.05	0.46	0.37	3.31	0.06	0.54
SEP. 20-OCT. 5/78														
ALL	0	0.01	25.9	0.02	92.9	0.01	35.9	40.0	0.02	0.14	0.06	0.50	0.02	0.19
	I	0.00	17.6	0.02	63.2	0.01	24.4	128.4	0.05	0.45	0.18	1.61	0.07	0.62
	II	0.00	13.2	0.01	47.4	0.00	18.3	177.4	0.07	0.62	0.25	2.22	0.10	0.86
	III	0.00	1.6	0.00	5.7	0.00	2.2	47.2	0.02	0.16	0.07	0.59	0.03	0.23

Appendix table II (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 4-13/79																
ALL	I	2211.2	503.2	399	9	3	14	6.8	8.3	18.7	0.67	6.65	85.7	163.79	37.27	126.52
	II				3	2	9	180.0	-17.8	35.8	0.33	12.92	109.2	245.69	55.91	189.78
JULY 24-26/79																
ALL	I	2269.1	420.1	384	6	1	7	0.4	5.9	8.5	0.83	9.51	96.6	315.15	58.35	256.81
	II				1	0	1	0.0	1.0	1.0	1.00	15.20	115.0	2269.10	420.10	1849.00
SEP. 18-20/79																
ALL	II	2271.5	436.9	391	3	1	5	2.3	1.5	7.5	0.67	19.27	124.7	504.78	97.09	407.69
JULY 22-24/80																
ALL	0	2085.5	533.5	372	10	3	14	4.9	9.9	18.7	0.70	0.68	41.5	145.98	37.34	108.64
	I				1	1						8.12	92.5			
	II				1	0	1	0.0	1.0	1.0	1.00	19.58	124.0	2085.50	533.50	1552.00
	III				2	0	2	0.0	2.0	2.0	1.00	73.99	192.5	1042.75	266.75	776.00
SEP. 16-18/80																
ALL	0	2049.6	444.1	377	20	8	33	34.6	21.6	45.1	0.60	3.28	68.0	61.49	13.32	48.17
	I				2	0	2	0.0	2.0	2.0	1.00	10.15	98.0	1024.80	222.05	802.75
	II				3	0	3	0.0	3.0	3.0	1.00	37.99	156.0	683.20	148.03	535.17

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 4-13/79														
ALL	I	0.01	24.7	0.03	108.6	0.01	32.0	89.8	0.04	0.36	0.18	1.59	0.05	0.47
	II	0.00	16.5	0.02	72.4	0.01	21.3	116.2	0.05	0.47	0.23	2.06	0.07	0.61
JULY 24-26/79														
ALL	I	0.00	12.8	0.02	69.4	0.00	15.8	68.5	0.03	0.27	0.16	1.45	0.04	0.33
	II	0.00	1.8	0.00	9.6	0.00	2.2	15.2	0.01	0.06	0.04	0.32	0.01	0.07
SEP. 18-20/79														
ALL	II	0.00	8.0	0.01	41.7	0.00	9.9	86.7	0.04	0.34	0.20	1.77	0.05	0.42
JULY 22-24/80														
ALL	0	0.01	27.7	0.03	108.4	0.01	37.3	9.7	0.00	0.04	0.02	0.16	0.01	0.06
	I													
	II	0.00	1.9	0.00	7.6	0.00	2.6	19.6	0.01	0.08	0.04	0.33	0.01	0.11
	III	0.00	3.9	0.00	15.2	0.00	5.2	148.0	0.07	0.63	0.28	2.47	0.10	0.85
SEP. 16-18/80														
ALL	0	0.02	65.8	0.08	303.8	0.02	84.0	109.5	0.05	0.48	0.25	2.20	0.07	0.61
	I	0.00	3.9	0.00	18.2	0.00	5.0	20.3	0.01	0.09	0.05	0.41	0.01	0.11
	II	0.00	5.9	0.01	27.3	0.00	7.6	114.0	0.06	0.50	0.26	2.29	0.07	0.63

Appendix table III. Carnation Creek cutthroat.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 5-8/78																
ALL	0	2282.9	510.1	358	16	6	26	20.3	16.6	34.6	0.63	0.31	31.5	89.18	19.93	69.25
	I				10	1	11	0.2	10.3	11.9	0.90	6.55	81.9	205.46	45.91	159.55
	II				5	0	5	0.0	5.0	5.0	1.00	15.69	116.0	456.58	102.02	354.56
	III				1	2						30.27	150.3			
JULY 25-27/78																
ALL	0	1974.0	277.4	362	88	0	88	0.0	88.0	88.0	1.00	0.89	44.5	22.43	3.15	19.28
	I				10	0	10	0.0	10.0	10.0	1.00	6.37	84.9	197.40	27.74	169.66
	II				4	0	4	0.0	4.0	4.0	1.00	17.83	123.5	493.50	69.35	424.15
	III				3	0	3	0.0	3.0	3.0	1.00	38.79	159.0	658.00	92.47	565.53
	IV				1	0	1	0.0	1.0	1.0	1.00	101.32	220.0	1974.00	277.40	1696.60
SEP. 20-OCT. 5/78																
ALL	0	2551.6	711.4	361	81	22	111	27.0	100.8	121.6	0.73	1.64	55.0	22.95	6.40	16.55
	I				12	3	16	3.0	12.6	19.4	0.75	7.46	91.6	159.48	44.46	115.01
	II				4	4						23.67	134.0			
	III				2	1	4	12.0	-2.9	10.9	0.50	47.14	185.7	637.90	177.85	460.05

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 5-8/78														
ALL	0	0.01	45.4	0.05	203.1	0.01	58.4	8.0	0.00	0.03	0.02	0.14	0.00	0.04
	I	0.00	19.7	0.02	88.2	0.01	25.4	72.8	0.03	0.28	0.14	1.27	0.04	0.37
	II	0.00	8.9	0.01	39.7	0.00	11.4	78.4	0.03	0.31	0.15	1.37	0.04	0.39
	III													
JULY 25-27/78														
ALL	0	0.04	180.4	0.32	1283.8	0.05	209.9	78.4	0.04	0.35	0.28	2.52	0.05	0.41
	I	0.01	20.5	0.04	145.9	0.01	23.9	63.7	0.03	0.29	0.23	2.05	0.04	0.33
	II	0.00	8.2	0.01	58.4	0.00	9.5	71.3	0.04	0.32	0.26	2.29	0.04	0.38
	III	0.00	6.2	0.01	43.8	0.00	7.2	116.4	0.06	0.53	0.42	3.74	0.07	0.61
	IV	0.00	2.1	0.00	14.6	0.00	2.4	101.3	0.05	0.46	0.37	3.26	0.06	0.53
SEP. 20-OCT. 5/78														
ALL	0	0.04	176.4	0.16	632.6	0.06	244.6	182.8	0.07	0.64	0.26	2.29	0.10	0.89
	I	0.01	25.4	0.02	91.0	0.01	35.2	119.4	0.05	0.42	0.17	1.50	0.06	0.58
	II													
	III	0.00	6.3	0.01	22.8	0.00	8.8	188.6	0.07	0.66	0.27	2.36	0.10	0.91

Appendix table III (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 4-13/79																
ALL	0	2211.2	503.2	399	1	1						0.16	25.5			
	I				7	2	10	2.8	6.4	13.2	0.71	7.73	89.8	225.63	51.35	174.29
	II				5	1	6	0.6	4.7	7.8	0.80	14.11	110.8	353.79	80.51	273.28
	III				0	1						36.40	155.0			
JULY 24-26/79																
ALL	0	2269.1	420.1	384	62	18	87	26.6	77.1	97.7	0.71	0.67	40.7	25.97	4.81	21.16
	I				4	2	8	24.0	-1.8	17.8	0.50	9.76	95.0	283.64	52.51	231.13
	II				3	1	5	2.3	1.5	7.5	0.67	23.15	131.5	504.24	93.36	410.89
	III				2	0	2	0.0	2.0	2.0	1.00	62.69	190.5	1134.55	210.05	924.50
SEP. 18-20/79																
ALL	0	2271.5	436.9	391	27	10	43	32.3	31.5	54.2	0.63	1.45	53.3	52.97	10.19	42.78
	I				10	1	11	0.2	10.3	11.9	0.90	8.84	96.5	204.43	39.32	165.11
	II				1	0	1	0.0	1.0	1.0	1.00	25.82	140.0	2271.50	436.90	1834.60

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 4-13/79														
ALL	0													
	I	0.00	17.9	0.02	78.8	0.01	23.2	75.8	0.03	0.31	0.15	1.34	0.04	0.40
	II	0.00	11.4	0.01	50.3	0.00	14.8	88.2	0.04	0.36	0.18	1.56	0.05	0.46
	III													
JULY 24-26/79														
ALL	0	0.04	155.8	0.21	841.6	0.05	191.2	58.9	0.03	0.23	0.14	1.25	0.03	0.28
	I	0.00	14.3	0.02	77.1	0.00	17.5	78.0	0.03	0.31	0.19	1.66	0.04	0.38
	II	0.00	8.0	0.01	43.4	0.00	9.8	104.2	0.05	0.41	0.25	2.21	0.06	0.50
	III	0.00	3.6	0.00	19.3	0.00	4.4	125.4	0.06	0.49	0.30	2.66	0.07	0.60
SEP. 18-20/79														
ALL	0	0.02	76.4	0.10	397.2	0.02	94.6	62.3	0.03	0.24	0.14	1.27	0.03	0.30
	I	0.00	19.8	0.03	102.9	0.01	24.5	98.2	0.04	0.39	0.22	2.01	0.05	0.48
	II	0.00	1.8	0.00	9.3	0.00	2.2	25.8	0.01	0.10	0.06	0.53	0.01	0.13

Appendix table III (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 22-24/80																
ALL	0	2085.5	533.5	372	12	4	18	9.0	12.0	24.0	0.67	0.30	32.7	115.86	29.64	86.22
	I				10	4	17	17.3	8.4	25.0	0.60	8.53	94.1	125.13	32.01	93.12
	II				1	2						33.05	128.3			
SEP. 16-18/80																
ALL	0	2049.6	444.1	377	23	3	26	0.8	24.7	28.2	0.87	1.33	52.3	77.49	16.79	60.70
	I				14	4	20	5.6	14.8	24.4	0.71	9.16	99.7	104.57	22.66	81.91
	II				6	1	7	0.4	5.9	8.5	0.83	27.90	139.9	284.67	61.68	222.99
	III				1	1						52.66	171.5			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 22-24/80														
ALL	0	0.01	34.9	0.03	136.5	0.01	46.9	5.5	0.00	0.02	0.01	0.09	0.00	0.03
	I	0.01	32.3	0.03	126.4	0.01	43.5	142.1	0.07	0.61	0.27	2.38	0.09	0.82
	II													
SEP. 16-18/80														
ALL	0	0.01	52.2	0.06	241.0	0.02	66.7	35.2	0.02	0.15	0.08	0.71	0.02	0.20
	I	0.01	38.7	0.04	178.6	0.01	49.4	179.6	0.09	0.78	0.40	3.61	0.11	1.00
	II	0.00	14.2	0.02	65.6	0.00	18.1	200.9	0.10	0.87	0.45	4.03	0.13	1.12
	III													

Appendix table IV. Carnation Creek Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 2-3/71																
II (2/8)	ALL	877.0	116.0	170	218	244	86	617	2787.3	511.1	722.3	2.10	58.1	1.42	0.19	1.23
II (3/8)	ALL	877.0	116.0	170	218	251	27	1971	119076.0	1280.9	2661.1	2.10	58.1	0.44	0.06	0.39
VI	ALL	372.0	46.0	130	47	36	6	254	6524.1	92.2	415.3	2.10	58.1	1.47	0.18	1.28
SEP. 15-16/71																
II	ALL	861.2	116.3	170	177	189	12	2602	450352.0	1259.4	3943.7	2.10	58.3	0.33	0.04	0.29
III	ALL	607.5	44.7	125	25	31	3	208	7571.2	34.0	382.0	9.60	91.0	2.92	0.21	2.71
IV	ALL	579.7	46.8	100	29	26	3	203	6986.3	35.3	369.7	6.80	82.2	2.86	0.23	2.63
VI	ALL	371.8	45.8	130	27	13	0	392	71344.0	-142.2	926.2	8.80	88.1	0.95	0.12	0.83
VIII	ALL	367.4	107.0	115	53	23	3	324	17496.0	59.5	588.5	6.40	80.5	1.13	0.33	0.80
ALL	ALL	2787.6	360.6	640	311	282	21	4013	645897.0	2406.1	5620.8	3.85	66.5	0.69	0.09	0.60

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 2-3/71														
II (2/8)	ALL	0.70	2845.9	5.32	21516.2	0.81	3279.7	1295.1	1.48	13.17	11.16	99.59	1.70	15.18
II (3/8)	ALL	2.25	9095.4	16.99	68764.1	2.59	10481.8	4139.1	4.72	42.10	35.68	318.28	5.44	48.52
VI	ALL	0.68	2760.2	5.52	22321.3	0.78	3149.6	532.8	1.43	12.78	11.58	103.32	1.63	14.58
SEP. 15-16/71														
II	ALL	3.02	12225.3	22.37	90528.2	3.49	14134.0	5463.2	6.34	56.59	46.98	419.02	7.33	65.42
III	ALL	0.34	1385.6	4.65	18831.7	0.37	1495.7	1996.8	3.29	29.32	44.67	398.47	3.55	31.65
IV	ALL	0.35	1413.7	4.33	17511.1	0.38	1537.8	1377.0	2.38	21.19	29.42	262.45	2.58	23.05
VI	ALL	1.05	4266.9	8.56	34638.1	1.20	4866.3	3449.6	9.28	82.76	75.32	671.84	10.58	94.39
VIII	ALL	0.88	3568.9	3.03	12254.5	1.24	5035.4	2073.6	5.64	50.34	19.38	172.86	7.96	71.03
ALL	ALL	1.44	5826.7	11.13	45042.8	1.65	6692.4	15459.6	5.55	49.47	42.87	382.42	6.37	56.82

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 31-AUG. 2/72																
II	ALL	338.7	59.0	60	90	52	213	1491.6	135.9	290.4	0.42	1.80	56.8	1.59	0.28	1.31
III	ALL	347.6	101.1	83	29	15	60	216.7	30.6	89.5	0.48	4.50	73.6	5.79	1.68	4.10
IV	ALL	321.8	43.8	68	29	21	105	4527.4	-29.4	239.7	0.28	5.90	78.7	3.06	0.42	2.64
VI	ALL	325.4	40.3	65	13	8	34	363.4	-4.3	71.9	0.38	5.60	77.7	9.63	1.19	8.43
VIII	ALL	245.1	123.1	73	53	20	85	69.2	68.5	101.8	0.62	6.40	80.4	2.88	1.45	1.43
ALL	ALL	1578.6	367.3	349	214	116	467	2204.7	373.4	561.2	0.46	4.04	68.9	3.38	0.79	2.59
SEP. 11-13/72																
II	ALL	377.4	15.4	99	117	56	224	536.4	178.1	270.7	0.52	2.20	59.2	1.68	0.07	1.61
III	ALL	420.6	19.6	107	14	10	49	1837.5	-36.7	134.7	0.29	4.10	71.1	8.58	0.40	8.18
IV	ALL	312.9	12.6	66	7	5	25	918.8	-36.1	85.1	0.29	5.50	77.5	12.77	0.51	12.26
VI	ALL	358.9	1.7	114	14	4	20	5.6	14.8	24.4	0.71	6.40	81.1	18.31	0.09	18.22
VIII	ALL	335.0	94.2	92	21	14	63	1260.0	-8.0	134.0	0.33	9.00	81.9	5.32	1.50	3.82
ALL	ALL	1804.8	143.5	478	173	89	356	1247.5	285.7	426.9	0.49	3.72	65.7	5.07	0.40	4.66

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 31-AUG. 2/72														
II	ALL	0.63	2546.9	3.61	14621.2	0.76	3084.2	383.7	1.13	10.10	6.50	58.01	1.37	12.24
III	ALL	0.17	699.4	0.59	2404.6	0.24	986.2	270.3	0.78	6.94	2.67	23.85	1.10	9.78
IV	ALL	0.33	1322.1	2.40	9713.3	0.38	1530.4	620.2	1.93	17.19	14.16	126.31	2.23	19.90
VI	ALL	0.10	420.4	0.84	3394.3	0.12	479.8	189.3	0.58	5.19	4.70	41.90	0.66	5.92
VIII	ALL	0.35	1405.5	0.69	2798.4	0.70	2823.7	544.8	2.22	19.83	4.43	39.48	4.47	39.83
ALL	ALL	0.30	1198.0	1.27	5148.9	0.39	1561.3	1888.2	1.20	10.67	5.14	45.86	1.56	13.90
SEPT. 11-13/72														
II	ALL	0.59	2406.4	14.57	58973.2	0.62	2508.8	493.7	1.31	11.67	32.06	285.96	1.36	12.17
III	ALL	0.12	471.5	2.50	10117.5	0.12	494.5	200.9	0.48	4.26	10.25	91.43	0.50	4.47
IV	ALL	0.08	316.9	1.94	7869.2	0.08	330.2	134.8	0.43	3.84	10.69	95.39	0.45	4.00
VI	ALL	0.05	221.0	11.53	46659.5	0.05	222.1	125.4	0.35	3.12	73.79	658.19	0.35	3.13
VIII	ALL	0.19	761.1	0.67	2706.6	0.26	1058.8	567.0	1.69	15.10	6.02	53.69	2.35	21.00
ALL	ALL	0.20	798.9	2.48	10048.3	0.21	868.0	1326.2	0.73	6.55	9.24	82.44	0.80	7.12

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 25-28/73																
II	ALL	453.9	27.3	69	126	59	237	507.4	191.9	282.0	0.53	2.30	57.0	1.92	0.12	1.80
III	ALL	520.9	55.3	108	40	16	67	69.1	50.0	83.3	0.60	6.59	80.9	7.81	0.83	6.98
IV	ALL	240.8	44.9	33	14	6	25	34.5	12.8	36.2	0.57	6.15	80.9	9.83	1.83	8.00
VI	ALL	379.4	128.5	59	19	11	45	319.9	9.4	80.9	0.42	6.51	81.5	8.41	2.85	5.56
VIII	ALL	336.3	102.4	71	54	17	79	31.9	67.5	90.1	0.69	5.13	75.6	4.27	1.30	2.97
ALL	ALL	1931.3	358.4	340	253	109	445	640.3	393.9	495.1	0.57	4.08	67.7	4.34	0.81	3.54
AUG. 7-9/73																
II	ALL	338.8	25.4	63	149	70	281	611.7	231.6	330.5	0.53	2.42	58.4	1.21	0.09	1.12
III	ALL	310.1	9.6	82	22	6	30	7.4	24.8	35.7	0.73	8.79	86.4	10.25	0.32	9.93
IV	ALL	218.9	32.8	34	7	4	16	106.5	-4.3	37.0	0.43	6.39	79.5	13.40	2.01	11.39
VI	ALL	246.3	32.2	52	17	8	32	70.5	15.3	48.9	0.53	6.77	82.6	7.67	1.00	6.67
VIII	ALL	190.1	49.3	52	16	7	28	44.0	15.2	41.7	0.56	5.82	79.5	6.68	1.73	4.95
ALL	ALL	1304.2	149.3	283	211	95	384	679.0	331.7	435.9	0.55	3.75	65.3	3.40	0.39	3.01

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 25-28/73														
II	ALL	0.52	2112.7	8.68	35126.7	0.56	2247.9	544.3	1.20	10.70	19.94	177.84	1.28	11.38
III	ALL	0.13	517.9	1.21	4878.8	0.14	579.5	439.5	0.84	7.53	7.95	70.89	0.94	8.42
IV	ALL	0.10	411.8	0.55	2208.3	0.13	506.1	150.7	0.63	5.58	3.36	29.94	0.77	6.86
VI	ALL	0.12	481.3	0.35	1421.2	0.18	727.9	293.9	0.77	6.91	2.29	20.40	1.17	10.45
VIII	ALL	0.23	948.4	0.77	3114.7	0.34	1363.6	404.5	1.20	10.73	3.95	35.23	1.73	15.43
ALL	ALL	0.23	931.5	1.24	5019.3	0.28	1143.7	1813.5	0.94	8.38	5.06	45.13	1.15	10.28
AUG. 7-9/73														
II	ALL	0.83	3356.9	11.06	44776.0	0.90	3628.9	679.0	2.00	17.88	26.73	238.44	2.17	19.32
III	ALL	0.10	394.8	3.15	12752.3	0.10	407.4	266.0	0.86	7.65	27.71	247.14	0.89	7.90
IV	ALL	0.07	302.0	0.50	2015.3	0.09	355.2	104.4	0.48	4.26	3.18	28.40	0.56	5.01
VI	ALL	0.13	527.6	1.00	4035.8	0.15	607.0	217.5	0.88	7.88	6.75	60.25	1.02	9.06
VIII	ALL	0.15	605.5	0.58	2335.0	0.20	817.6	165.4	0.87	7.76	3.36	29.93	1.17	10.48
ALL	ALL	0.29	1191.0	2.57	10403.5	0.33	1344.9	1440.8	1.10	9.85	9.65	86.08	1.25	11.13

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 10-13/73																
II	ALL	286.9	18.4	67	100	83	588	150942.0	-188.8	1365.3	0.17	2.84	61.7	0.49	0.03	0.46
III	ALL	298.6	11.1	82	12	9	48	3024.0	-62.0	158.0	0.25	5.97	79.2	6.22	0.23	5.99
IV	ALL	289.3	10.2	44	11	6	24	118.5	2.4	46.0	0.45	6.90	83.8	11.95	0.42	11.53
V	ALL	193.1	62.2	38	21	3	25	0.9	22.6	26.4	0.86	6.59	83.1	7.88	2.54	5.34
VI	ALL	114.4	0.0	52	11	4	17	12.1	10.3	24.2	0.64	6.72	82.9	6.62	0.00	6.62
VIII	ALL	180.1	48.3	52	13	6	24	48.1	10.3	38.0	0.54	6.61	83.9	7.46	2.00	5.46
ALL	ALL	1362.4	150.2	335	168	111	495	9191.1	303.4	686.9	0.34	4.11	68.9	2.75	0.30	2.45
MAY 21-JUNE 1/74																
ALL	ALL	2227.1	548.5	347	91	74	487	89584.8	-111.5	1085.7	0.19	2.38	58.8	4.57	1.13	3.45
JUNE 19/74																
II	ALL	461.9	34.1	73	66	36	145	710.9	91.9	198.5	0.45	1.74	55.5	3.18	0.23	2.95

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 10-13/73														
II	ALL	2.05	8297.6	31.97	129380.0	2.19	8866.3	1668.1	5.81	51.86	90.66	808.64	6.21	55.42
III	ALL	0.16	650.6	4.32	17500.5	0.17	675.7	286.4	0.96	8.56	25.80	230.14	1.00	8.89
IV	ALL	0.08	338.5	2.37	9601.7	0.09	350.9	167.0	0.58	5.15	16.37	146.03	0.60	5.34
V	ALL	0.13	513.5	0.39	1594.1	0.19	757.5	161.3	0.84	7.45	2.59	23.14	1.23	10.99
VI	ALL	0.15	611.5	0.00	0.0	0.15	611.5	116.2	1.02	9.06	0.00	0.00	1.02	9.06
VIII	ALL	0.13	542.5	0.50	2022.9	0.18	741.3	159.6	0.89	7.90	3.30	29.47	1.21	10.80
ALL	ALL	0.36	1470.9	3.30	13341.6	0.41	1653.1	2033.9	1.49	13.32	13.54	120.79	1.68	14.97
MAY 21-JUNE 1/74														
ALL	ALL	0.22	885.2	0.89	3594.1	0.29	1174.4	1158.4	0.52	4.64	2.11	18.84	0.69	6.16
JUNE 19/74														
II	ALL	0.31	1272.2	4.26	17232.4	0.34	1373.6	252.0	0.55	4.87	7.39	65.92	0.59	5.25

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 23-25/74																
II	ALL	515.7	50.2	71	96	86	922	1240540.0	-1306.0	3149.2	0.10	2.47	60.5	0.56	0.05	0.51
III	ALL	304.3	61.7	61	12	4	18	9.0	12.0	24.0	0.67	3.91	68.7	16.91	3.43	13.48
IV	ALL	281.1	62.5	35	3	1	5	2.3	1.5	7.5	0.67	4.78	73.2	62.47	13.89	48.58
V	ALL	283.5	84.1	44	15	9	38	337.5	0.8	74.2	0.40	7.45	82.1	7.56	2.24	5.32
VI	ALL	364.2	78.6	52	8	5	21	256.8	-10.7	53.4	0.38	4.19	73.0	17.07	3.68	13.39
VIII	ALL	449.2	147.2	80	23	16	76	2199.7	-18.2	169.4	0.30	6.75	80.5	5.94	1.95	4.00
ALL	ALL	2198.0	484.3	343	157	121	685	59731.7	195.9	1173.5	0.23	3.70	66.4	3.21	0.71	2.50
AUG. 16/74																
II	ALL	380.8	8.9	71	59	25	102	136.8	79.0	125.8	0.58	2.03	56.7	3.72	0.09	3.63
SEP. 16-19/74																
II	ALL	375.3	21.3	70	77	64	456	119891.0	-236.4	1148.6	0.17	2.48	60.2	0.82	0.05	0.78
III	ALL	218.3	28.3	63	22	15	69	1678.2	-12.8	151.1	0.32	4.48	70.2	3.16	0.41	2.75
IV	ALL	247.6	18.7	34	6	1	7	0.4	5.9	8.5	0.83	5.27	78.9	34.39	2.60	31.79
V	ALL	191.6	58.9	45	18	12	54	1080.0	-11.7	119.7	0.33	5.18	78.6	3.55	1.09	2.46
VI	ALL	215.9	13.3	56	12	2	14	0.8	12.6	16.2	0.83	5.72	81.9	14.99	0.92	14.07
VIII	ALL	172.7	82.4	55	14	3	18	2.0	15.0	20.7	0.79	5.03	78.5	9.69	4.62	5.07
ALL	ALL	1421.4	222.9	323	149	97	427	7028.1	259.3	594.6	0.35	3.55	67.0	3.33	0.52	2.81

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 23-25/74														
II	ALL	1.79	7232.3	18.36	74297.1	1.98	8012.3	2280.5	4.42	39.44	45.43	405.21	4.90	43.70
III	ALL	0.06	239.4	0.29	1180.6	0.07	300.3	70.4	0.23	2.06	1.14	10.18	0.29	2.59
IV	ALL	0.02	64.8	0.07	291.4	0.02	83.3	21.5	0.08	0.68	0.34	3.07	0.10	0.88
V	ALL	0.13	535.3	0.45	1804.5	0.19	761.1	279.6	0.99	8.80	3.32	29.65	1.40	12.51
VI	ALL	0.06	237.1	0.27	1098.4	0.07	302.3	89.4	0.25	2.19	1.14	10.15	0.31	2.79
VIII	ALL	0.17	680.8	0.51	2077.7	0.25	1012.7	510.4	1.14	10.14	3.47	30.93	1.69	15.08
ALL	ALL	0.31	1260.7	1.41	5721.6	0.40	1616.9	2534.1	1.15	10.28	5.23	46.67	1.48	13.19
AUG. 16/74														
II	ALL	0.27	1088.1	11.50	46555.2	0.28	1114.1	208.3	0.55	4.88	23.40	208.77	0.56	5.00
SEP. 16-19/74														
II	ALL	1.22	4918.0	21.41	86654.6	1.29	5214.0	1130.3	3.01	26.86	53.07	473.34	3.19	28.48
III	ALL	0.32	1281.8	2.44	9887.7	0.36	1472.7	309.7	1.42	12.65	10.94	97.61	1.63	14.54
IV	ALL	0.03	117.7	0.39	1558.2	0.03	127.3	37.9	0.15	1.37	2.03	18.10	0.17	1.48
V	ALL	0.28	1140.6	0.92	3710.3	0.41	1646.9	279.6	1.46	13.02	4.75	42.35	2.11	18.80
VI	ALL	0.07	269.9	1.08	4381.7	0.07	287.6	82.4	0.38	3.41	6.20	55.29	0.41	3.63
VIII	ALL	0.10	417.5	0.22	875.1	0.20	798.6	89.7	0.52	4.63	1.09	9.71	0.99	8.86
ALL	ALL	0.30	1215.6	1.92	7751.6	0.36	1441.7	1515.3	1.07	9.51	6.80	60.64	1.26	11.28

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 20-22/75																
ALL	ALL	2241.4	746.7	335	83	99						2.04	57.9			
JULY 21-24/75																
II	ALL	371.9	39.5	78	117	55	221	482.0	176.9	264.7	0.53	3.01	63.3	1.68	0.18	1.51
III	ALL	253.4	17.1	57	11	3	15	3.7	11.3	19.0	0.73	5.83	83.1	16.75	1.13	15.62
IV	ALL	217.8	32.3	46	8	3	13	10.1	6.4	19.2	0.63	4.13	73.1	17.02	2.52	14.49
V	ALL	259.8	42.0	50	17	7	29	34.0	17.2	40.6	0.59	5.69	82.1	8.99	1.45	7.54
VI	ALL	250.2	19.3	52	7	5	25	918.8	-36.1	85.1	0.29	6.09	85.7	10.21	0.79	9.42
VIII	ALL	177.9	87.6	51	14	1	15	0.1	14.4	15.7	0.93	5.10	78.8	11.80	5.81	5.99
ALL	ALL	1531.0	237.8	334	174	74	303	411.2	262.2	343.3	0.57	3.76	68.7	5.06	0.79	4.27
SEP 16-18/75																
II	ALL	394.1	27.4	73	82	39	156	362.0	118.3	194.4	0.52	3.30	67.2	2.52	0.18	2.35
III	ALL	246.2	11.9	55	13	5	21	18.6	12.5	29.7	0.62	6.73	84.9	11.65	0.56	11.09
IV	ALL	292.0	59.3	45	6	2	9	4.5	4.8	13.2	0.67	7.91	90.5	32.44	6.59	25.86
V	ALL	259.0	49.7	50	18	6	27	13.5	19.7	34.3	0.67	7.45	86.6	9.59	1.84	7.75
VI	ALL	265.0	21.8	52	9	5	20	110.7	-0.8	41.3	0.44	8.44	90.1	13.09	1.08	12.01
VIII	ALL	183.4	83.0	52	28	7	37	6.9	32.1	42.6	0.75	6.24	81.5	4.91	2.22	2.69
ALL	ALL	1639.7	253.1	327	156	64	265	306.1	229.5	299.5	0.59	4.99	75.3	6.20	0.96	5.24

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 20-22/75														
ALL	ALL													
JULY 21-24/75														
II	ALL	0.59	2402.6	5.59	22621.2	0.66	2688.1	664.9	1.79	15.95	16.83	150.14	2.00	17.84
III	ALL	0.06	241.6	0.88	3579.6	0.06	259.0	88.2	0.35	3.10	5.16	45.99	0.37	3.33
IV	ALL	0.06	237.8	0.40	1603.8	0.07	279.3	52.9	0.24	2.17	1.64	14.61	0.29	2.54
V	ALL	0.11	450.2	0.69	2784.7	0.13	537.0	164.5	0.63	5.65	3.92	34.93	0.76	6.74
VI	ALL	0.10	396.3	1.27	5137.4	0.11	429.4	149.3	0.60	5.32	7.74	69.00	0.65	5.77
VIII	ALL	0.08	343.0	0.17	696.5	0.17	675.7	76.9	0.43	3.86	0.88	7.83	0.85	7.60
ALL	ALL	0.20	800.3	1.27	5152.5	0.23	947.5	1136.9	0.74	6.62	4.78	42.64	0.88	7.84
SEP 16-18/75														
II	ALL	0.40	1605.8	5.71	23096.3	0.43	1725.8	515.6	1.31	11.67	18.82	167.84	1.41	12.54
III	ALL	0.09	347.2	1.78	7184.3	0.09	364.9	142.2	0.58	5.15	11.95	106.62	0.61	5.42
IV	ALL	0.03	124.7	0.15	614.2	0.04	156.5	71.2	0.24	2.17	1.20	10.71	0.31	2.73
V	ALL	0.10	421.9	0.54	2198.6	0.13	522.1	201.2	0.78	6.93	4.05	36.12	0.96	8.58
VI	ALL	0.08	309.3	0.93	3759.3	0.08	337.0	170.9	0.64	5.75	7.84	69.92	0.70	6.27
VIII	ALL	0.20	823.8	0.45	1820.3	0.37	1504.9	232.9	1.27	11.33	2.81	25.03	2.32	20.69
ALL	ALL	0.16	652.9	1.05	4229.6	0.19	772.0	1321.2	0.81	7.19	5.22	46.56	0.95	8.50

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 18-20/76																
ALL	ALL	2140.3	530.9	326	69	43	183	2157.5	90.2	276.0	0.38	3.00	64.8	11.69	2.90	8.79
JULY 13-15/76																
II	ALL	405.6	41.1	73	78	39	156	468.0	112.7	199.3	0.50	3.44	66.8	2.60	0.26	2.34
III	ALL	359.3	89.4	55	8	5	21	256.8	-10.7	53.4	0.38	7.37	86.2	16.84	4.19	12.65
IV	ALL	265.6	87.0	36	5	4	25	3600.0	-95.0	145.0	0.20	6.90	81.6	10.62	3.48	7.14
V	ALL	272.7	58.9	47	9	3	14	6.8	8.3	18.7	0.67	8.71	92.3	20.20	4.36	15.84
VI	ALL	412.3	60.5	55	9	0	9	0.0	9.0	9.0	1.00	8.11	91.4	45.81	6.72	39.09
VIII	ALL	312.8	156.1	60	17	6	26	16.3	18.2	34.4	0.65	7.16	86.7	11.91	5.94	5.96
ALL	ALL	2028.3	493.0	326	126	57	230	416.4	189.3	270.9	0.55	4.93	74.3	8.82	2.14	6.67
SEP. 20-23/76																
II	ALL	370.9	24.7	73	53	34	148	2167.8	54.7	241.0	0.36	3.65	68.5	2.51	0.17	2.34
III	ALL	358.2	28.6	55	6	1	7	0.4	5.9	8.5	0.83	7.85	87.9	49.75	3.97	45.78
IV	ALL	262.0	68.7	38	6	1	7	0.4	5.9	8.5	0.83	7.82	87.4	36.39	9.54	26.85
V	ALL	256.8	66.0	48	3	2	9	180.0	-17.8	35.8	0.33	8.97	93.2	28.53	7.33	21.20
VI	ALL	388.5	78.7	53	7	4	16	106.5	-4.3	37.0	0.43	8.20	89.7	23.79	4.82	18.97
VIII	ALL	288.3	110.8	62	10	2	13	1.2	10.3	14.7	0.80	7.34	85.5	23.06	8.86	14.20
ALL	ALL	1924.7	377.5	329	85	44	176	638.6	125.7	226.8	0.48	5.04	74.9	10.92	2.14	8.78

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 18-20/76														
ALL	ALL	0.09	346.2	0.34	1395.9	0.11	460.5	549.4	0.26	2.29	1.03	9.23	0.34	3.05
JULY 13-15/76														
II	ALL	0.38	1556.5	3.80	15360.9	0.43	1732.0	536.7	1.32	11.80	13.06	116.49	1.47	13.14
III	ALL	0.06	240.3	0.24	965.7	0.08	319.9	157.3	0.44	3.90	1.76	15.69	0.58	5.20
IV	ALL	0.09	380.9	0.29	1162.9	0.14	566.5	172.5	0.65	5.79	1.98	17.68	0.97	8.61
V	ALL	0.05	200.3	0.23	927.6	0.06	255.5	117.6	0.43	3.85	2.00	17.82	0.55	4.91
VI	ALL	0.02	88.3	0.15	602.0	0.03	103.5	73.0	0.18	1.58	1.21	10.76	0.21	1.85
VIII	ALL	0.08	339.9	0.17	681.1	0.17	678.5	188.0	0.60	5.36	1.20	10.74	1.20	10.70
ALL	ALL	0.11	459.1	0.47	1888.8	0.15	606.5	1134.9	0.56	4.99	2.30	20.53	0.74	6.59
SEP. 20-23/76														
II	ALL	0.40	1613.1	5.99	24223.4	0.43	1728.2	539.4	1.45	12.97	21.84	194.78	1.56	13.90
III	ALL	0.02	81.3	0.25	1018.8	0.02	88.4	56.5	0.16	1.41	1.98	17.64	0.17	1.53
IV	ALL	0.03	111.2	0.10	424.1	0.04	150.7	56.3	0.21	1.92	0.82	7.31	0.29	2.60
V	ALL	0.04	141.8	0.14	551.9	0.05	190.9	80.7	0.31	2.80	1.22	10.91	0.42	3.77
VI	ALL	0.04	170.1	0.21	839.9	0.05	213.4	134.0	0.34	3.08	1.70	15.19	0.43	3.86
VIII	ALL	0.04	175.5	0.11	456.6	0.07	285.0	91.7	0.32	2.84	0.83	7.38	0.52	4.61
ALL	ALL	0.09	370.5	0.47	1889.2	0.11	460.9	888.3	0.46	4.12	2.35	20.99	0.57	5.12

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
MAY 16-19/77																
ALL	ALL	2242.1	495.1	363	41	20	80	210.9	51.0	109.1	0.51	3.80	69.6	28.01	6.19	21.82
JULY 19-21/77																
II	ALL	374.3	7.0	69	94	23	124	21.5	115.2	133.7	0.76	4.32	69.5	3.01	0.06	2.95
III	ALL	336.9	52.5	55	9	1	10	0.2	9.2	11.0	0.89	8.76	90.2	33.27	5.19	28.09
IV	ALL	394.8	95.2	57	9	2	12	1.5	3.1	14.0	0.78	8.95	87.9	34.12	8.23	25.89
V	ALL	349.5	0.0	50	4	3	16	1008.0	-47.5	79.5	0.25	11.77	100.3	21.84	0.00	21.84
VI	ALL	393.9	60.2	49	8	2	11	2.0	7.9	13.5	0.75	10.32	95.8	36.93	5.64	31.28
VIII	ALL	469.7	227.4	75	6	10						8.30	89.5			
ALL	ALL	2319.1	442.3	355	130	41	190	77.4	172.3	207.5	0.68	5.91	76.6	12.21	2.33	9.88
SEP. 26-29/77																
II	ALL	404.5	19.8	66	60	25	103	127.4	80.3	125.4	0.58	4.38	71.9	3.93	0.19	3.74
III	ALL	349.1	74.5	55	5	2	8	8.6	2.5	14.2	0.60	10.54	95.9	41.89	8.94	32.95
IV	ALL	378.6	91.3	54	7	2	10	2.8	6.4	13.2	0.71	8.50	91.9	38.63	9.32	29.32
V	ALL	349.0	13.0	50	4	1	5	1.0	3.3	7.3	0.75	9.14	91.4	65.44	2.44	63.00
VI	ALL	426.7	80.6	56	4	6						10.99	96.8			
VIII	ALL	439.0	209.9	76	14	11	65	7319.8	-105.8	236.4	0.21	8.59	89.3	6.72	3.21	3.51
ALL	ALL	2346.9	489.1	357	94	47	188	564.0	140.5	235.5	0.50	6.33	79.9	12.48	2.60	9.88

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
MAY 16-19/77														
ALL	ALL	0.04	144.5	0.16	654.3	0.05	185.4	303.9	0.14	1.21	0.61	5.47	0.17	1.55
JULY 19-21/77														
II	ALL	0.33	1345.6	17.78	71950.3	0.34	1371.2	537.7	1.44	12.81	76.81	685.16	1.46	13.06
III	ALL	0.03	121.6	0.19	780.5	0.04	144.1	88.7	0.26	2.35	1.69	15.07	0.31	2.78
IV	ALL	0.03	118.6	0.12	491.9	0.04	156.3	103.6	0.26	2.34	1.09	9.71	0.35	3.08
V	ALL	0.05	185.3	0.00	0.0	0.05	185.3	188.4	0.54	4.81	0.00	0.00	0.54	4.81
VI	ALL	0.03	109.6	0.18	717.1	0.03	129.4	110.1	0.28	2.49	1.83	16.31	0.33	2.94
VIII	ALL													
ALL	ALL	0.08	331.4	0.43	1737.5	0.10	409.5	1121.6	0.48	4.31	2.54	22.62	0.60	5.33
SEP. 26-29/77														
II	ALL	0.25	1029.1	5.19	21023.4	0.27	1082.0	450.6	1.11	9.94	22.76	202.98	1.17	10.45
III	ALL	0.02	96.6	0.11	452.7	0.03	122.8	87.8	0.25	2.24	1.18	10.52	0.32	2.85
IV	ALL	0.03	104.8	0.11	434.4	0.03	138.0	83.3	0.22	1.96	0.91	8.14	0.29	2.59
V	ALL	0.02	61.8	0.41	1660.3	0.02	64.2	48.8	0.14	1.25	3.75	33.46	0.15	1.29
VI	ALL													
VIII	ALL	0.15	602.3	0.31	1259.7	0.29	1154.1	561.1	1.28	11.40	2.67	23.84	2.45	21.85
ALL	ALL	0.08	324.2	0.38	1555.6	0.10	409.5	1190.6	0.51	4.53	2.43	21.71	0.64	5.72

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 5-8/78																
II	ALL	405.0	36.7	70	60	39	171	2787.3	65.8	277.0	0.35	3.33	64.9	2.36	0.21	2.15
III	ALL	319.3	46.9	55	4	2	8	24.0	-1.8	17.8	0.50	9.62	93.7	39.91	5.86	34.05
IV	ALL	399.5	81.9	56	4	4						6.42	81.2			
V	ALL	292.0	41.3	46	3	2	9	180.0	-17.8	35.8	0.33	9.66	93.8	32.44	4.59	27.86
VI	ALL	434.9	99.3	57	5	0	5	0.0	5.0	5.0	1.00	10.74	98.0	86.98	19.86	67.12
VIII	ALL	432.2	204.0	74	12	7	29	214.5	-0.5	58.1	0.42	7.70	87.8	15.01	7.08	7.92
ALL	ALL	2282.9	510.1	358	88	54	228	2399.5	129.8	325.7	0.39	4.84	72.3	10.02	2.24	7.78
JULY 25-27/78																
II	ALL	342.6	12.8	71	127	84	375	7023.8	207.5	542.7	0.34	2.63	60.6	0.91	0.03	0.88
III	ALL	316.9	20.7	55	6	3	12	36.0	0.0	24.0	0.50	11.20	93.3	26.41	1.73	24.68
IV	ALL	325.2	47.2	58	4	0	4	0.0	4.0	4.0	1.00	3.85	68.0	81.30	11.80	69.50
V	ALL	270.8	23.2	49	3	1	5	2.3	1.5	7.5	0.67	9.89	94.5	60.18	5.16	55.02
VI	ALL	352.4	41.0	55	5	1	6	0.6	4.7	7.8	0.80	7.89	83.2	56.38	6.56	49.82
VIII	ALL	366.1	132.5	74	10	2	13	1.2	10.3	14.7	0.80	8.76	90.7	29.29	10.60	18.69
ALL	ALL	1974.0	277.4	362	155	91	375	2917.2	267.4	483.4	0.41	3.51	64.5	5.26	0.74	4.52

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 5-8/78														
II	ALL	0.42	1713.0	4.67	18903.9	0.47	1883.7	570.7	1.41	12.57	15.55	138.71	1.55	13.82
III	ALL	0.03	101.4	0.17	690.3	0.03	118.9	76.9	0.24	2.15	1.64	14.63	0.28	2.52
IV	ALL													
V	ALL	0.03	124.7	0.22	881.9	0.04	145.3	86.9	0.30	2.66	2.10	18.78	0.35	3.09
VI	ALL	0.01	46.5	0.05	203.8	0.01	60.3	53.7	0.12	1.10	0.54	4.82	0.16	1.43
VIII	ALL	0.07	269.7	0.14	571.3	0.13	510.8	221.6	0.51	4.57	1.09	9.69	0.97	8.66
ALL	ALL	0.10	403.8	0.45	1807.0	0.13	519.9	1101.6	0.48	4.30	2.16	19.26	0.62	5.54
JULY 25-27/78														
II	ALL	1.09	4430.8	29.30	118594.0	1.14	4602.8	985.1	2.88	25.65	76.96	686.46	2.99	26.64
III	ALL	0.04	153.2	0.58	2346.1	0.04	164.0	134.4	0.42	3.78	6.49	57.91	0.45	4.05
IV	ALL	0.01	49.8	0.08	343.0	0.01	58.2	15.4	0.05	0.42	0.33	2.91	0.06	0.49
V	ALL	0.02	67.3	0.19	785.0	0.02	73.6	44.5	0.16	1.47	1.92	17.10	0.18	1.60
VI	ALL	0.02	71.8	0.15	616.9	0.02	81.2	49.3	0.14	1.25	1.20	10.73	0.16	1.41
VIII	ALL	0.03	138.2	0.09	381.8	0.05	216.6	109.5	0.30	2.67	0.83	7.37	0.47	4.18
ALL	ALL	0.19	769.6	1.35	5476.6	0.22	895.4	1315.9	0.67	5.95	4.74	42.31	0.78	6.92

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 20-OCT. 5/78																
II	ALL	507.7	57.2	71	174	76	309	474.0	265.4	352.5	0.56	2.36	60.1	1.64	0.19	1.46
III	ALL	401.3	55.0	55	7	4	16	106.5	-4.3	37.0	0.43	6.25	81.3	24.57	5.20	19.37
IV	ALL	423.5	124.8	58	9	7	41	3969.0	-85.5	166.5	0.22	8.82	87.6	10.46	3.08	7.38
V	ALL	330.4	97.7	49	9	1	10	0.2	9.2	11.0	0.89	6.08	76.1	32.63	9.65	22.98
VI	ALL	435.1	127.8	56	14	5	22	14.2	14.2	29.3	0.64	9.26	91.8	19.98	5.87	14.11
VIII	ALL	453.6	218.9	72	18	5	25	6.5	19.8	30.0	0.72	8.70	90.0	18.20	8.78	9.42
ALL	ALL	2551.6	711.4	361	231	98	401	538.8	354.8	447.6	0.58	3.76	66.6	6.36	1.77	4.59
JUNE 4-13/79																
II	ALL	427.8	47.8	71	108	72	324	6480.0	163.0	485.0	0.33	2.87	62.8	1.32	0.15	1.17
III	ALL	361.8	54.3	55	7	2	10	2.8	6.4	13.2	0.71	8.02	88.0	36.92	5.54	31.38
IV	ALL	375.1	66.4	59	10	1	11	0.2	10.3	11.9	0.90	8.13	83.5	33.76	5.98	27.78
V	ALL	233.9	99.4	61	4	3	16	1008.0	-47.5	79.5	0.25	8.47	89.3	14.62	6.21	8.41
VI	ALL	342.4	38.0	79	7	5	25	918.8	-36.1	85.1	0.29	6.61	81.5	13.98	1.55	12.42
VIII	ALL	470.2	197.3	74	12	6	24	72.0	7.0	41.0	0.50	10.04	93.5	19.59	8.22	11.37
ALL	ALL	2211.2	503.2	399	148	89	371	3393.5	254.7	487.8	0.40	4.21	68.8	5.96	1.36	4.60

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 20-OCT. 5/78														
II	ALL	0.61	2462.6	5.40	21858.0	0.69	2775.3	728.6	1.44	12.80	12.74	113.62	1.62	14.43
III	ALL	0.04	164.7	0.19	777.7	0.05	209.0	102.1	0.25	2.27	1.20	10.72	0.32	2.88
IV	ALL	0.10	387.0	0.32	1313.3	0.14	548.7	357.0	0.84	7.52	2.86	25.52	1.20	10.66
V	ALL	0.03	124.0	0.10	419.4	0.04	176.1	61.6	0.19	1.66	0.63	5.62	0.26	2.36
VI	ALL	0.05	202.6	0.17	689.6	0.07	286.8	201.7	0.46	4.13	1.58	14.08	0.66	5.85
VIII	ALL	0.05	222.4	0.11	460.8	0.11	429.8	216.9	0.48	4.26	0.99	8.84	0.92	8.24
ALL	ALL	0.16	636.3	0.56	2282.4	0.22	882.3	1507.7	0.59	5.27	2.12	18.90	0.82	7.31
JUNE 4-13/79														
II	ALL	0.76	3065.0	6.78	27431.6	0.85	3450.6	930.8	2.18	19.41	19.47	173.69	2.45	21.85
III	ALL	0.03	109.6	0.18	730.4	0.03	129.0	78.6	0.22	1.94	1.45	12.91	0.26	2.28
IV	ALL	0.03	119.9	0.17	677.2	0.04	145.7	80.3	0.24	2.15	1.36	12.13	0.29	2.61
V	ALL	0.07	276.8	0.16	651.4	0.12	481.4	135.6	0.58	5.17	1.36	12.17	1.01	8.99
VI	ALL	0.07	289.6	0.64	2609.3	0.08	325.7	162.0	0.47	4.22	4.26	38.04	0.53	4.75
VIII	ALL	0.05	206.6	0.12	492.3	0.09	355.9	241.0	0.51	4.57	1.22	10.90	0.88	7.88
ALL	ALL	0.17	679.5	0.74	2985.8	0.22	879.7	1563.6	0.71	6.31	3.11	27.72	0.92	8.17

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 24-26/79																
II	ALL	480.2	35.0	67	85	28	127	60.6	111.2	142.3	0.67	3.17	67.0	3.79	0.28	3.51
III	ALL	384.1	70.4	55	5	0	5	0.0	5.0	5.0	1.00	4.79	76.2	76.82	14.08	62.74
IV	ALL	369.4	73.7	53	5	2	8	8.6	2.5	14.2	0.60	6.70	84.1	44.33	8.84	35.48
V	ALL	208.0	88.4	57	10	5	20	60.0	4.5	35.5	0.50	7.15	83.6	10.40	4.42	5.98
VI	ALL	328.1	1.6	76	7	5	25	918.8	-36.1	85.1	0.29	5.17	74.2	13.39	0.07	13.33
VIII	ALL	499.3	151.0	76	12	5	21	25.5	10.5	30.7	0.58	7.48	84.9	24.27	7.34	16.93
ALL	ALL	2269.1	420.1	384	124	45	195	135.1	171.4	217.9	0.64	4.30	71.8	11.66	2.16	9.50
SEP. 18-20/79																
II	ALL	414.5	38.5	70	71	37	148	557.7	101.0	195.5	0.48	3.87	71.7	2.80	0.26	2.54
III	ALL	394.5	84.3	55	3	1	5	2.3	1.5	7.5	0.67	7.39	87.7	87.67	18.73	68.93
IV	ALL	434.0	66.7	59	8	2	11	2.0	7.9	13.5	0.75	5.75	80.9	40.69	6.25	34.43
V	ALL	230.9	59.7	58	5	8						7.73	86.8			
VI	ALL	368.4	23.7	77	7	3	12	17.2	3.9	20.6	0.57	6.56	83.5	30.07	1.93	28.14
VIII	ALL	429.2	164.0	72	11	7	30	416.9	-10.6	71.1	0.36	6.34	82.8	14.19	5.42	8.77
ALL	ALL	2271.5	436.9	391	105	58	235	1238.9	164.2	305.0	0.45	4.82	75.8	9.68	1.86	7.82

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 24-26/79														
II	ALL	0.26	1068.3	3.62	14656.4	0.28	1152.2	402.2	0.84	7.47	11.49	102.51	0.90	8.06
III	ALL	0.01	52.7	0.07	287.4	0.02	64.5	24.0	0.06	0.56	0.34	3.04	0.08	0.68
IV	ALL	0.02	91.3	0.11	457.6	0.03	114.1	55.9	0.15	1.35	0.76	6.76	0.19	1.69
V	ALL	0.10	389.1	0.23	915.6	0.17	676.8	143.0	0.69	6.13	1.62	14.43	1.20	10.66
VI	ALL	0.07	302.2	15.31	61969.7	0.08	303.7	126.7	0.39	3.44	79.17	706.21	0.39	3.46
VIII	ALL	0.04	166.7	0.14	551.3	0.06	239.0	153.9	0.31	2.75	1.02	9.09	0.44	3.94
ALL	ALL	0.09	347.1	0.46	1875.0	0.11	426.0	836.0	0.37	3.29	1.99	17.75	0.45	4.03
SEP. 18-20/79														
II	ALL	0.36	1447.6	3.85	15585.1	0.39	1595.8	573.3	1.38	12.34	14.89	132.82	1.52	13.60
III	ALL	0.01	46.2	0.05	216.0	0.01	58.7	33.2	0.08	0.75	0.39	3.52	0.11	0.96
IV	ALL	0.02	99.5	0.16	647.2	0.03	117.5	61.3	0.14	1.26	0.92	8.20	0.17	1.49
V	ALL													
VI	ALL	0.03	134.6	0.52	2091.8	0.04	143.8	80.4	0.22	1.95	3.39	30.25	0.23	2.06
VIII	ALL	0.07	285.2	0.18	746.5	0.11	461.6	191.8	0.45	3.99	1.17	10.43	0.72	6.45
ALL	ALL	0.10	417.9	0.54	2172.9	0.13	517.5	1129.5	0.50	4.44	2.59	23.06	0.62	5.49

Appendix table IV (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 22-24/80																
II	ALL	412.2	27.6	65	62	35	142	859.5	83.7	201.0	0.44	3.15	66.8	2.90	0.19	2.70
III	ALL	320.2	110.8	55	13	5	21	18.6	12.5	29.7	0.62	3.70	70.4	15.16	5.24	9.91
IV	ALL	328.8	120.5	54	14	3	18	2.0	15.0	20.7	0.79	2.03	65.2	18.45	6.76	11.69
V	ALL	230.0	42.4	55	8	4	16	48.0	2.1	29.9	0.50	3.34	65.7	14.38	2.65	11.73
VI	ALL	386.8	98.9	75	11	11						5.67	74.9			
VIII	ALL	407.5	133.3	68	20	18	200	307800.0	-909.6	1309.6	0.10	5.21	72.5	2.04	0.67	1.37
ALL	ALL	2085.5	533.5	372	128	76	315	2640.4	212.3	417.8	0.41	3.84	68.9	6.62	1.69	4.93
SEP. 16-18/80																
II	ALL	419.5	14.3	68	65	20	94	35.0	82.1	105.7	0.69	3.96	69.8	4.47	0.15	4.32
III	ALL	308.0	53.4	55	12	3	16	3.0	12.6	19.4	0.75	5.44	77.5	19.25	3.34	15.91
IV	ALL	335.1	115.0	57	10	5	20	60.0	4.5	35.5	0.50	5.47	78.4	16.75	5.75	11.01
V	ALL	232.0	80.8	54	18	4	23	3.0	19.7	26.6	0.78	8.15	83.1	10.02	3.49	6.53
VI	ALL	362.9	74.8	75	11	7	30	416.9	-10.6	71.1	0.36	8.91	86.8	12.00	2.47	9.52
VIII	ALL	392.1	105.8	68	23	14	59	584.7	10.4	107.1	0.39	5.47	74.0	6.67	1.80	4.87
ALL	ALL	2049.6	444.1	377	139	53	225	190.5	197.1	252.3	0.62	5.43	75.0	9.12	1.98	7.15

SECTION	AGE	WETTED FISH/ SQ M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ M	RIFFLE FISH/ ACRE	POOL FISH/ SQ M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 22-24/80														
II	ALL	0.35	1397.8	5.16	20875.8	0.37	1498.1	449.1	1.09	9.72	16.27	145.16	1.17	10.42
III	ALL	0.07	267.0	0.19	771.6	0.10	408.3	78.2	0.24	2.18	0.71	6.30	0.37	3.33
IV	ALL	0.05	219.3	0.15	598.4	0.09	346.2	50.5	0.15	1.37	0.42	3.74	0.24	2.16
V	ALL	0.07	281.5	0.38	1527.2	0.09	345.2	53.5	0.23	2.07	1.26	11.25	0.29	2.54
VI	ALL													
VIII	ALL	0.49	1986.3	1.50	6072.0	0.73	2951.9	1041.6	2.56	22.80	7.81	69.70	3.80	33.88
ALL	ALL	0.15	611.4	0.59	2390.1	0.20	821.6	1210.3	0.58	5.18	2.27	20.24	0.78	6.96
SEP. 16-18/80														
II	ALL	0.22	905.8	6.57	26571.2	0.23	937.7	372.0	0.89	7.91	26.01	232.03	0.92	8.19
III	ALL	0.05	210.2	0.30	1212.6	0.06	254.3	87.0	0.28	2.52	1.63	14.54	0.34	3.05
IV	ALL	0.06	241.5	0.17	703.8	0.09	367.7	109.4	0.33	2.91	0.95	8.49	0.50	4.43
V	ALL	0.10	403.7	0.29	1159.1	0.15	619.4	188.5	0.81	7.25	2.33	20.81	1.25	11.12
VI	ALL	0.08	337.3	0.40	1636.7	0.10	424.9	269.5	0.74	6.62	3.60	32.14	0.94	8.34
VIII	ALL	0.15	606.7	0.56	2248.3	0.21	830.9	321.5	0.82	7.31	3.04	27.11	1.12	10.02
ALL	ALL	0.11	443.6	0.51	2047.3	0.14	566.3	1219.7	0.60	5.31	2.75	24.50	0.76	6.78

Appendix table V. Carnation Creek Cottus asper.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 2-3/71																
II	ALL	877.0	116.0	170	21	23	4	106	1471.4	28.9	182.3	8.10	86.9	8.30	1.10	7.21
III	ALL	877.0	116.0	170	21	30	1	341	36259.7	-39.8	721.8	8.10	86.9	2.57	0.34	2.23
SEP. 15-16/71																
II	ALL	861.2	116.3	170	28	32	2	319	23127.5	14.8	623.2	5.50	77.5	2.70	0.36	2.34
III	ALL	607.5	44.7	125	8	7	0	72	2268.0	-23.2	167.2	10.20	92.9	8.44	0.62	7.82
IV	ALL	579.7	46.8	100	4	1	1	5	0.0	5.0	5.0	16.20	110.5	115.94	9.36	106.58
VI	ALL	371.8	45.8	130	0	2	0	3	3.0	-0.5	6.5	170.00	114.5	123.93	15.27	108.67
VIII	ALL	367.4	107.0	115	0	0	0	1	0.0	1.0	1.0	0.00	0.0	367.40	107.00	260.40
ALL	ALL	2787.6	360.6	640	40	42	3	441	35238.0	65.3	816.2	7.70	80.8	6.32	0.82	5.51

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 2-3//1														
II	ALL	0.12	487.3	0.91	3684.2	0.14	561.6	855.4	0.98	8.70	7.37	65.77	1.12	10.03
III	ALL	0.39	1573.6	2.94	11896.8	0.45	1813.4	2762.1	3.15	28.09	23.81	212.40	3.63	32.38
SEP. 15-16/71														
II	ALL	0.37	1499.1	2.74	11100.5	0.43	1733.1	1754.5	2.04	18.17	15.09	134.57	2.36	21.01
III	ALL	0.12	479.6	1.61	6518.7	0.13	517.7	734.4	1.21	10.78	16.43	146.55	1.30	11.64
IV	ALL	0.01	34.9	0.11	432.4	0.01	38.0	81.0	0.14	1.25	1.73	15.44	0.15	1.36
VI	ALL	0.01	32.7	0.07	265.1	0.01	37.2	510.0	1.37	12.24	11.14	99.33	1.56	13.95
VIII	ALL	0.00	11.0	0.01	37.8	0.00	15.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00
ALL	ALL	0.16	639.9	1.22	4946.5	0.18	734.9	3393.7	1.22	10.86	9.41	83.95	1.40	12.47

Appendix table V (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 31-AUG. 2/72																
II	ALL	338.7	59.0	60	6	3	12	36.0	0.0	24.0	0.50	13.50	100.3	28.23	4.92	23.31
SEP. 11-13/72																
II	ALL	377.4	15.4	99	9	5	20	110.7	-0.8	41.3	0.44	9.10	89.8	18.64	0.76	17.88
JUNE 25/73																
II	ALL	453.9	27.3	69	11	2	13	1.0	11.5	15.4	0.82	6.14	76.6	33.76	2.03	31.73
AUG. 7/73																
II	ALL	338.8	25.4	63	10	6	25	225.0	-5.0	55.0	0.40	6.76	81.7	13.55	1.02	12.54
SEP. 10-13/73																
II	ALL	286.9	18.4	67	7	2	10	2.8	6.4	13.2	0.71	8.33	87.8	29.28	1.88	27.40
III	ALL	298.6	11.1	82	6	2	9	4.5	4.8	13.2	0.67	13.72	103.9	33.18	1.23	31.94
JUNE 19/74																
II	ALL	461.9	34.1	73	8	8						2.44	61.4			
JULY 23-25/74																
II	ALL	515.7	50.2	71	2	1	4	12.0	-2.9	10.9	0.50	8.12	95.0	128.93	12.55	116.38

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 31-AUG. 2/72														
II	ALL	0.04	143.4	0.20	823.1	0.04	173.6	162.0	0.48	4.27	2.75	24.49	0.58	5.17
SEP. 11-13/72														
II	ALL	0.05	217.1	1.31	5321.5	0.06	226.4	184.3	0.49	4.36	11.97	106.74	0.51	4.54
JUNE 25/73														
II	ALL	0.03	119.9	0.49	1993.0	0.03	127.5	82.5	0.18	1.62	3.02	26.97	0.19	1.73
AUG. 7/73														
II	ALL	0.07	298.6	0.98	3983.3	0.08	322.8	169.1	0.50	4.45	6.66	59.38	0.54	4.81
SEP. 10-13/73														
II	ALL	0.03	138.2	0.53	2155.5	0.04	147.7	81.6	0.28	2.54	4.43	39.56	0.30	2.71
III	ALL	0.03	122.0	0.81	3281.4	0.03	126.7	123.5	0.41	3.69	11.12	99.21	0.43	3.83
JUNE 19/74														
II	ALL													
JULY 23-25/74														
II	ALL	0.01	31.4	0.08	322.5	0.01	34.8	32.5	0.06	0.56	0.65	5.77	0.07	0.62

Appendix table V (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 16/74																
II	ALL	380.8	8.9	71	1	1						1.60	52.0			
SEP. 16-19/74																
II	ALL	375.3	21.3	70	3	3						6.44	89.8			
III	ALL	218.3	28.3	63	2	0	2	0.0	2.0	2.0	1.00	11.96	10.3	109.15	14.15	95.00
JULY 21/75																
II	ALL	371.9	39.5	78	7	4	16	106.5	-4.3	37.0	0.43	6.43	81.7	22.77	2.42	20.35
SEP. 18/75																
II	ALL	394.1	27.4	73	15	5	23	11.3	15.8	29.2	0.67	9.25	85.5	17.52	1.22	16.30
JULY 13-15/76																
II	ALL	405.6	41.1	73	7	4	16	106.5	-4.3	37.0	0.43	8.33	89.7	24.83	2.52	22.32
SEP. 20-23/76																
II	ALL	370.9	24.7	73	11	1	12	0.1	11.3	12.9	0.91	13.30	102.5	30.65	2.04	28.61
JULY 19-21/77																
II	ALL	374.3	7.0	69	8	5	21	256.8	-10.7	53.4	0.38	8.08	89.7	17.55	0.33	17.22

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 16/74														
II	ALL													
SEP. 16-19/74														
II	ALL													
III	ALL	0.01	37.1	0.07	286.0	0.01	42.6	23.9	0.11	0.98	0.85	7.54	0.13	1.12
JULY 21/75														
II	ALL	0.04	177.7	0.41	1673.4	0.05	198.9	104.9	0.28	2.52	2.66	23.70	0.32	2.82
SEP. 18/75														
II	ALL	0.06	231.1	0.82	3323.3	0.06	248.3	208.1	0.53	4.71	7.59	67.73	0.57	5.06
JULY 13-15/76														
II	ALL	0.04	163.0	0.40	1608.3	0.04	181.3	136.1	0.34	2.99	3.31	29.53	0.37	3.33
SEP. 20-23/76														
II	ALL	0.03	132.0	0.49	1982.5	0.03	141.4	160.9	0.43	3.87	6.51	58.10	0.46	4.15
JULY 19-21/77														
II	ALL	0.06	230.7	3.05	12333.7	0.06	235.1	172.3	0.46	4.11	24.62	219.61	0.47	4.19

Appendix table V (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 28 29/77																
II	ALL	404.5	12.8	66	10	4	17	17.3	8.4	25.0	0.60	8.00	87.3	24.27	1.19	23.08
JUNE 8/78																
II	ALL	405.0	36.7	70	11	8	40	1816.5	-44.9	125.6	0.27	6.10	82.0	10.04	0.91	9.13
JULY 25/78																
II	ALL	342.6	12.8	71	4	9						7.00	82.3			
OCT. 5/78																
II	ALL	507.7	57.2	71	6	4	18	360.0	-19.9	55.9	0.33	7.76	88.6	28.21	3.18	25.03
JUNE 4/79																
II	ALL	427.8	47.8	71	8	5	21	256.8	-10.7	53.4	0.38	9.24	90.2	20.05	2.24	17.81
JULY 24/79																
II	ALL	480.2	35.0	67	16	2	18	0.5	16.9	19.7	0.88	7.76	87.5	26.26	1.91	24.35
SEP. 20/79																
II	ALL	414.5	38.5	70	9	7	41	3969.0	-85.5	166.5	0.22	8.59	90.3	10.23	0.95	9.28

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 28-29/77														
II	ALL	0.04	166.7	0.84	3406.6	0.04	175.3	133.3	0.33	2.94	6.73	60.03	0.35	3.09
JUNE 8/78														
II	ALL	0.10	403.0	1.10	4447.7	0.11	443.2	245.9	0.61	5.42	6.70	59.77	0.67	5.96
JULY 25/78														
II	ALL													
OCT. 5/78														
II	ALL	0.04	143.5	0.31	1273.5	0.04	161.7	139.7	0.28	2.45	2.44	21.79	0.31	2.77
JUNE 4/79														
II	ALL	0.05	201.8	0.45	1806.2	0.06	227.2	197.1	0.46	4.11	4.12	36.79	0.52	4.63
JULY 24/79														
II	ALL	0.04	154.1	0.52	2114.4	0.04	166.2	141.9	0.30	2.64	4.05	36.16	0.32	2.84
SEP. 20/79														
II	ALL	0.10	395.4	1.05	4257.2	0.11	435.9	347.8	0.84	7.48	9.03	80.58	0.92	8.25

Appendix table V (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM).	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JULY 22/80																
II	ALL	412.2	27.6	65	21	4	26	2.1	23.0	28.8	0.81	7.91	86.8	15.89	1.06	14.83
SEP. 16/80																
II	ALL	419.5	14.3	68	14	5	22	14.2	14.2	29.3	0.64	9.85	94.5	19.26	0.66	18.61

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JULY 22/80														
II	ALL	0.06	254.7	0.94	3803.8	0.07	273.0	205.2	0.50	4.44	7.43	66.32	0.53	4.76
SEP. 16/80														
II	ALL	0.05	210.1	1.52	6163.3	0.05	217.5	214.4	0.51	4.56	14.99	133.75	0.53	4.72

Appendix table VI. Upper Carnation Creek(IX) cutthroat.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 9/71																
IX	0	574.5	-	158	4	1	5	1.0	3.3	7.3	0.75	0.48	32.6	107.72		
	I				7	6	49	22932.0	-253.9	351.9	0.14	6.24	77.5	11.72		
	II				19	15	90	10787.7	-117.5	298.0	0.21	15.51	109.1	6.37		
	III				0	1						36.83	151.0			
AUG. 3/72																
IX	I	233.4	48.0	99	25	10	42	43.2	28.5	54.8	0.60	5.25	73.7	5.60	1.15	4.45
	II				27	6	35	4.5	30.5	38.9	0.78	17.88	111.9	6.72	1.38	5.34
SEP. 14/72																
IX	0	233.4	48.0	99	1	1						0.47	30.0			
	I				28	6	3[illegible]	4.1	31.6	39.7	0.79	7.22	81.8	6.55	1.35	5.20
	II				16	3	20	1.5	17.2	22.2	0.81	21.28	118.3	11.85	2.44	9.41
JUNE 28/73																
IX	I	391.4	77.7	107	3	0	3	0.0	3 0	3.0	1.00	2.65	65.7	130.47	25.90	104.57
	II				20	11	44	228.7	14.2	74.7	0.45	11.00	105.0	8.81	1.75	7.06
	III				5	3	13	112.5	-8.7	33.7	0.40	28.00	144.5	31.31	6.22	25.10

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 9/71														
IX	0	0.01	37.6											
	I	0.09	345.2					2.6	0.00	0.04				
	II	0.16	635.8					305.8	0.53	4.75				
	III							1399.8	2.44	21.73				
AUG. 3/72														
IX	I	0.18	722.5	0.87	3513.0	0.22	909.5	218.8	0.94	8.36	4.56	40.65	1.18	10.52
	II	0.15	601.9	0.72	2926.8	0.19	757.8	620.7	2.66	23.72	12.93	115.35	3.35	29.86
SEP. 14/72														
IX	0													
	I	0.15	617.9	0.74	3004.6	0.19	777.9	257.3	1.10	9.83	5.36	47.81	1.39	12.38
	II	0.08	341.5	0.41	1660.3	0.11	429.9	419.1	1.80	16.02	8.73	77.87	2.26	20.16
JUNE 28/73														
IX	I	0.01	31.0	0.04	156.3	0.01	38.7	8.0	0.02	0.18	0.10	0.91	0.03	0.23
	II	0.11	459.5	0.57	2314.9	0.14	573.4	488.9	1.25	11.14	6.29	56.12	1.56	13.90
	III	0.03	129.2	0.16	651.1	0.04	161.3	350 0	0.89	7.98	4.50	40.18	1.12	9.95

Appendix table VI (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 31/73																
IX	0	158.9	25.2	107	34	3	37	0.4	36.0	38.6	0.91	0.29	31.8	4.26	0.68	3.59
	I				12	3	16	3.0	12.6	19.4	0.75	7.36	91.1	9.93	1.58	8.36
	II				18	2	20	0.4	19.0	21.5	0.89	14.11	114.5	7.85	1.24	6.60
	III				5	2	8	8.6	2.5	14.2	0.60	29.09	143.4	19.07	3.02	16.04
JUNE 19/74																
IX	I	270.4	51.4	71	5	4	25	3600.0	-95.0	145.0	0.20	2.25	60.7	10.82	2.06	8.76
	II				9	4	16	27.0	5.8	26.6	0.56	13.45	109.0	16.69	3.17	13.52
	III				6	1	7	0.4	5.9	8.5	0.83	24.65	138.7	37.56	7.14	30.42
SEP. 20/74																
IX	0	270.4	51.4	71	21	9	37	51.7	22.4	51.1	0.57	0.57	38.7	7.36	1.40	5.96
	I				17	9	36	148.6	11.7	60.5	0.47	4.22	75.7	7.49	1.42	6.06
	II				15	2	17	0.5	15.8	18.8	0.87	14.35	113.8	15.62	2.97	12.65
	III				4	0	4	0.0	4.0	4.0	1.00	28.62	143.5	67.60	12.85	54.75
JUNE 18/75																
IX	I	287.5	49.7	73	17	3	21	1.4	18.3	23.0	0.82	3.10	65.3	13.93	2.41	11.52
	II				14	3	18	2.0	15.0	20.7	0.79	14.03	110.5	16.14	2.79	13.35
	III				3	0	3	0.0	3.0	3.0	1.00	28.42	147.0	95.83	16.57	79.27

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 31/73														
IX	0	0.23	949.7	1.48	5988.6	0.28	1128.8	10.6	0.07	0.60	0.42	3.76	0.08	0.71
	I	0.10	407.5	0.63	2569.5	0.12	484.3	117.8	0.74	6.61	4.67	41.70	0.88	7.86
	II	0.13	515.7	0.80	3252.1	0.15	613.0	285.7	1.80	16.04	11.34	101.14	2.14	19.06
	III	0.05	212.2	0.33	1338.3	0.06	252.2	242.4	1.53	13.61	9.62	85.82	1.81	16.18
JUNE 19/74														
IX	I	0.09	374.2	0.49	1968.4	0.11	462.0	56.3	0.21	1.86	1.10	9.77	0.26	2.29
	II	0.06	242.5	0.32	1275.5	0.07	299.4	217.9	0.81	7.19	4.24	37.81	0.99	8.87
	III	0.03	107.8	0.14	566.9	0.03	133.1	177.5	0.66	5.85	3.45	30.80	0.81	7.23
SEP. 20/74														
IX	0	0.14	550.0	0.71	2893.5	0.17	679.1	20.9	0.08	0.69	0.41	3.62	0.10	0.85
	I	0.13	540.7	0.70	2844.3	0.16	667.6	152.5	0.56	5.03	2.97	26.47	0.70	6.21
	II	0.06	259.0	0.34	1362.7	0.08	319.8	248.3	0.92	8.19	4.83	43.09	1.13	10.11
	III	0.01	59.9	0.08	314.9	0.02	73.9	114.5	0.42	3.78	2.23	19.87	0.52	4.66
JUNE 18/75														
IX	I	0.07	290.6	0.42	1680.9	0.09	351.3	64.0	0.22	1.98	1.29	11.48	0.27	2.40
	II	0.06	250.8	0.36	1450.9	0.07	303.2	250.0	0.87	7.76	5.03	44.87	1.05	9.38
	III	0.01	42.2	0.06	244.3	0.01	51.1	85.3	0.30	2.65	1.72	15.30	0.36	3.20

Appendix table VI (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 20/75																
IX	0	270.4	51.4	71	14	4	20	5.6	14.8	24.4	0.71	0.48	38.4	13.80	2.62	11.17
	I				11	5	20	37.3	7.9	32.4	0.55	4.03	74.7	13.41	2.55	10.86
	II				20	3	24	1.0	21.5	25.5	0.85	12.81	109.9	11.49	2.18	9.31
	III				2	0	2	0.0	2.0	2.0	1.00	36.85	158.5	135.20	25.70	109.50
JUNE 22/76																
IX	I	311.1	104.7	73	8	2	11	2.0	7.9	13.5	0.75	2.15	59.3	29.17	9.82	19.35
	II				3	7						9.69	97.6			
	III				3	1	5	2.3	1.5	7.5	0.67	20.71	127.5	69.13	23.27	45.87
SEP. 24/76																
IX	0	271.7	81.3	71	26	13	52	156.0	27.0	77.0	0.50	0.52	38.6	5.23	1.56	3.66
	I				15	8	32	137.9	8.7	55.6	0.47	6.08	84.0	8.45	2.53	5.92
	II				10	3	14	4.9	9.9	18.7	0.70	16.32	116.2	19.02	5.69	13.33
	III				2	0	2	0.0	2.0	2.0	1.00	41.22	164.0	135.85	40.65	95.20
JUNE 10/77																
IX	I	311.0	120.5	68	12	9	48	3024.0	-62.0	158.0	0.25	2.34	61.7	6.48	2.51	3.97
	II				11	2	13	1.0	11.5	15.4	0.82	8.23	94.5	23.13	1.52	21.61
	III				1	0	1	0.0	1.0	1.0	1.00	36.91	163.0	311.00	20.50	290.50

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 20/75														
IX	0	0.07	293.3	0.38	1543.2	0.09	362.2	9.3	0.03	0.31	0.18	1.62	0.04	0.38
	I	0.07	301.8	0.39	1587.8	0.09	372.7	81.3	0.30	2.68	1.58	14.11	0.37	3.31
	II	0.09	352.2	0.46	1852.6	0.11	434.8	301.5	1.12	9.95	5.87	52.32	1.38	12.28
	III	0.01	29.9	0.04	157.5	0.01	37.0	73.7	0.27	2.43	1.43	12.79	0.34	3.00
JUNE 22/76														
IX	I	0.03	138.8	0.10	412.3	0.05	209.1	22.9	0.07	0.66	0.22	1.95	0.11	0.99
	II													
	III	0.01	58.5	0.04	173.9	0.02	88.2	93.2	0.30	2.67	0.89	7.94	0.45	4.03
SEP. 24/76														
IX	0	0.19	774.5	0.64	2588.5	0.27	1105.3	27.1	0.10	0.89	0.33	2.98	0.14	1.27
	I	0.12	478.8	0.40	1600.0	0.17	683.2	195.3	0.72	6.41	2.40	21.43	1.03	9.15
	II	0.05	212.8	0.18	711.1	0.08	303.6	233.1	0.86	7.65	2.87	25.58	1.22	10.92
	III	0.01	29.8	0.02	99.6	0.01	42.5	82.4	0.30	2.71	1.01	9.04	0.43	3.86
JUNE 10/77														
IX	I	0.15	624.6	0.40	1612.1	0.25	1019.7	112.4	0.36	3.23	0.93	8.32	0.59	5.27
	II	0.04	175.0	0.66	2654.1	0.05	187.3	110.7	0.36	3.17	5.40	48.17	0.38	3.40
	III	0.00	13.0	0.05	197.4	0.00	13.9	36.9	0.12	1.06	1.80	16.06	0.13	1.13

Appendix table VI (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 28/77																
IX	0	291.5	88.6	68	24	12	48	144.0	24.0	72.0	0.50	0.74	43.5	6.07	1.85	4.23
	I				22	7	32	13.6	24.9	39.6	0.68	6.28	85.0	9.03	2.75	6.29
	II				1	3						13.51	111.7			
	III				1	0	1	0.0	1.0	1.0	1.00	20.67	128.0	291.50	88.60	202.90
JUNE 6/78																
IX	I	226.5	50.'	75	12	5	21	25.5	10.5	30.7	0.58	3.43	62.9	11.01	2.46	8.55
	II				11	8	40	1816.5	-44.9	125.6	0.27	12.28	95.8	5.62	1.26	4.36
SEP. 19/78																
IX	0	270.7	75.8	74	11	4	17	12.1	10.3	24.2	0.64	0.88	44.7	15.66	4.39	11.28
	I				8	4	16	48.0	2.1	29.9	0.50	7.17	88.8	16.92	4.74	12.18
	II				3	1	5	2.3	1.5	7.5	0.67	15.93	117.7	60.16	16.84	43.31
JUNE 14/79																
IX	I	286.8	72.3	73	20	7	31	18.5	22.2	39.4	0.65	2.95	65.8	9.32	2.35	6.97
	II				15	6	25	25.9	14.8	35.2	0.60	9.48	98.9	11.47	2.89	8.58
	III				5	0	5	0.0	5.0	5.0	1.00	20.35	131.2	57.36	14.46	42.90

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 28/77														
IX	0	0.16	666.4	0.54	2192.5	0.24	957.4	35.7	0.12	1.09	0.40	3.59	0.18	1.57
	I	0.11	448.0	0.36	1473.9	0.16	643.6	202.7	0.70	6.20	2.29	20.41	1.00	8.91
	II													
	III	0.00	13.9	0.01	45.7	0.00	19.9	20.7	0.07	0.63	0.23	2.08	0.10	0.91
JUNE 6/78														
IX	I	0.09	367.6	0.41	1642.1	0.12	473.6	70.5	0.31	2.78	1.39	12.41	0.40	3.58
	II	0.18	720.7	0.80	3219.5	0.23	928.5	495.5	2.19	19.51	9.77	87.17	2.82	25.14
SEP. 19/78														
IX	0	0.06	258.4	0.23	922.9	0.09	358.9	15.1	0.06	0.50	0.20	1.78	0.08	0.69
	I	0.06	239.2	0.21	854.2	0.08	332.2	114.7	0.42	3.78	1.51	13.50	0.59	5.25
	II	0.02	67.3	0.06	240.3	0.02	93.4	71.7	0.26	2.36	0.95	8.44	0.37	3.28
JUNE 14/79														
IX	I	0.11	434.2	0.43	1722.3	0.14	580.5	90.8	0.32	2.82	1.26	11.20	0.42	3.77
	II	0.09	352.8	0.35	1399.4	0.12	471.7	237.1	0.83	7.37	3.28	29.25	1.11	9.86
	III	0.02	70.6	0.07	279.9	0.02	94.3	101.8	0.35	3.16	1.41	12.55	0.47	4.23

Appendix table VI (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
OCT. 10/79																
IX	0	205.4	103.4	72	23	14	59	584.7	10.4	107.1	0.39	1.08	48.8	3.49	1.76	1.74
	I				24	7	34	10.5	27.4	40.4	0.71	6.69	88.0	6.06	3.05	3.01
	II				6	0	6	0.0	6.0	6.0	1.00	20.06	131.0	34.23	17.23	17.00
	III				1	0	1	0.0	1.0	1.0	1.00	32.07	157.0	205.40	103.40	102.00
SEP. 24/80																
IX	0	298.6	100.5	78	28	7	37	6.9	32.1	42.6	0.75	1.02	46.0	8.00	2.69	5.31
	I				21	7	32	15.7	23.6	39.4	0.67	7.20	88.1	9.48	3.19	6.29
	II				7	3	12	17.2	3.9	20.6	0.57	20.32	126.8	24.38	8.20	16.17

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
OCT. 10/79														
IX	0	0.29	1158.1	0.57	2300.5	0.58	2332.1	63.5	0.31	2.76	0.61	5.48	0.62	5.55
	I	0.16	667.6	0.33	1326.1	0.33	1344.3	226.6	1.10	9.84	2.19	19.55	2.22	19.82
	II	0.03	118.2	0.06	234.8	0.06	238.1	120.3	0.59	5.23	1.16	10.38	1.18	10.52
	III	0.00	19.7	0.01	39.1	0.01	39.7	32.1	0.16	1.39	0.31	2.77	0.31	2.80
SEP. 24/80														
IX	0	0.13	506.0	0.37	1503.4	0.19	762.7	37.9	0.13	1.13	0.38	3.37	0.19	1.71
	I	0.11	426.9	0.31	1268.5	0.16	643.5	226.8	0.76	6.77	2.26	20.13	1.14	10.21
	II	0.04	166.0	0.12	493.3	0.06	250.3	248.9	0.83	7.44	2.48	22.09	1.26	11.21

Appendix table VII. Carnation Creek Tributary C cutthroat.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 3/72																
I	0	71.8	36.7	441	4	1	5	1.0	3.3	7.3	0.75	0.69	38.4	13.46	6.88	6.58
	I				37	6	44	2.3	41.1	47.2	0.84	6.20	77.5	1.63	0.83	0.79
	II				2	0	2	0.0	2.0	2.0	1.00	18.50	131.5	35.90	18.35	17.55
JUNE 26/73																
I	I	95.4	0.0	44	4	1	5	1.0	3.3	7.3	0.75	4.10	73.2	17.89	0.00	17.89
	II				7	4	16	106.5	-4.3	37.0	0.43	8.50	94.5	5.84	0.00	5.84
	III				1	0	1	0.0	1.0	1.0	1.00	37.00	158.0	95.40	0.00	95.40
SEP. 10/73																
I	0	58.3	0.0	43	13	7	28	127.8	5.6	50.8	0.46	0.68	43.0	2.07	0.00	2.07
	I				15	2	17	0.5	15.8	18.8	0.87	6.02	83.3	3.37	0.00	3.37
	II				11	3	15	3.7	11.3	19.0	0.73	12.98	108.9	3.85	0.00	3.85
	III				0	1						52.00	158.0			
JUNE 20/74																
I	0	84.4	0.0	48	5	7						0.24	26.3			
	I				5	1	6	0.6	4.7	7.8	0.80	4.43	73.2	15.10	0.00	15.10
	II				6	1	7	0.4	5.9	8.5	0.83	13.25	109.4	13.11	0.00	13.11
	III				2	0	2	0.0	2.0	2.0	1.00	40.87	156.5	47.20	0.00	47.20

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 3/72														
I	0	0.07	300.6	0.15	588.1	0.15	614.9	3.7	0.05	0.46	0.10	0.88	0.10	0.94
	I	0.62	2469.1	1.20	4869.8	1.26	5091.8	273.8	3.81	34.02	7.46	66.55	7.80	69.58
	II	0.03	112.7	0.05	220.5	0.06	230.6	37.0	0.52	4.60	1.01	8.99	1.05	9.40
JUNE 26/73														
I	I	0.06	226.2	0.00	0.0	0.06	226.2	21.9	0.23	2.04	0.00	0.00	0.23	2.04
	II	0.17	692.9	0.00	0.0	0.17	692.9	138.8	1.46	12.98	0.00	0.00	1.46	12.98
	III	0.01	42.4	0.00	0.0	0.01	42.4	37.0	0.39	3.46	0.00	0.00	0.39	3.46
SEP. 10/73														
I	0	0.48	1955.2	0.00	0.0	0.48	1955.2	19.2	0.33	2.93	0.00	0.00	0.33	2.93
	I	0.30	1201.4	0.00	0.0	0.30	1201.4	104.1	1.79	15.93	0.00	0.00	1.79	15.93
	II	0.26	1049.9	0.00	0.0	0.26	1049.9	196.4	3.37	30.04	0.00	0.00	3.37	30.04
	III													
JUNE 20/74														
I	0													
	I	0.07	267.9	0.00	0.0	0.07	267.9	27.7	0.29	2.62	0.00	0.00	0.29	2.62
	II	0.08	308.7	0.00	0.0	0.08	308.7	95.4	1.01	9.01	0.00	0.00	1.01	9.01
	III	0.02	85.7	0.00	0.0	0.02	85.7	81.7	0.87	7.72	0.00	0.00	0.87	7.72

Appendix table VII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 18/74																
I	0	77.3	0.0	47	38	11	53	16.1	46.5	61.5	0.71	0.86	47.2	1.46	0.00	1.46
	I				19	0	19	0.0	19.0	19.0	1.00	6.07	83.8	4.07	0.00	4.07
	II				2	0	2	0.0	2.0	2.0	1.00	1.63	117.5	38.65	0.00	38.65
	III				2	0	2	0.0	2.0	2.0	1.00	36.86	186.5	38.65	0.00	38.65
JUNE 17/75																
I	I	84.0	0.0	49	10	3	14	4.9	9.9	18.7	0.70	4.01	74.1	6.56	0.00	6.56
	II				2	1	4	12.0	-2.8	10.8	0.50	9.00	96.6	23.50	0.00	23.50
SEP. 18/75																
I	0	81.8	0.0	48	24	7	34	10.5	27.4	40.4	0.71	0.97	48.9	2.41	0.00	2.41
	I				21	3	25	0.9	22.6	26.4	0.86	7.32	90.9	3.34	0.00	3.34
	II				6	0	6	0.0	6.0	6.0	1.00	15.66	115.5	13.63	0.00	13.63
JUNE 23/76																
I	0	106.7	0.0	46	2	0	2	0.0	2.0	2.0	1.00	0.15	24.0	53.35	0.00	53.35
	I				13	2	15	0.7	13.7	17.0	0.86	4.13	73.4	6.84	0.00	6.84
	II				3	2	9	180.0	-17.8	35.8	0.33	14.61	103.8	11.86	0.00	11.86

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 18/74														
I	0	0.69	2800.0	0.00	0.0	0.69	2800.0	52.6	0.68	6.06	0.00	0.00	0.68	6.06
	I	0.25	994.7	0.00	0.0	0.25	994.7	115.2	1.49	13.30	0.00	0.00	1.49	13.30
	II	0.03	104.7	0.00	0.0	0.03	104.7	3.3	0.04	0.38	0.00	0.00	0.04	0.38
	III	0.03	104.7	0.00	0.0	0.03	104.7	74.0	0.96	8.54	0.00	0.00	0.96	8.54
JUNE 17/75														
I	I	0.15	615.0	0.00	0.0	0.15	615.0	57.3	0.61	5.43	0.00	0.00	0.61	5.43
	II	0.04	172.2	0.00	0.0	0.04	172.2	36.0	0.38	3.42	0.00	0.00	0.38	3.42
SEP. 18/75														
I	0	0.41	1676.3	0.00	0.0	0.41	1676.3	32.9	0.40	3.59	0.00	0.00	0.40	3.59
	I	0.30	1212.1	0.00	0.0	0.30	1212.1	179.2	2.19	19.55	0.00	0.00	2.19	19.55
	II	0.07	286.8	0.00	0.0	0.07	286.8	94.0	1.15	10.26	0.00	0.00	1.15	10.26
JUNE 23/76														
I	0	0.02	75.9	0.00	0.0	0.02	75.9	0.3	0.00	0.02	0.00	0.00	0.00	0.02
	I	0.14	582.7	0.00	0.0	0.14	582.7	63.4	0.59	5.30	0.00	0.00	0.59	5.30
	II	0.08	341.4	0.00	0.0	0.08	341.4	131.5	1.23	10.99	0.00	0.00	1.23	10.99

Appendix VII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 22/76																
I	0	97.4	0.0	46	18	8	32	53.9	17.7	47.1	0.56	0.96	44 7	3.01	0.00	3.01
	I				17	3	21	1.4	18.3	23.0	0.82	6.30	86.0	4.72	0.00	4.72
	II				4	1	5	1.0	3.3	7.3	0.75	22.50	123.6	18.26	0.00	18.26
JUNE 8/77																
I	I	107.1	0.0	47	17	7	29	34.0	17.2	40.6	0.59	3.44	67.7	3.71	0.00	3.71
	II				3	0	3	0.0	3.0	3.0	1.00	15.56	111.3	35.70	0.00	35.70
	III				1	0	1	0.0	1.0	1.0	1.00	37.33	150.0	107.10	0.00	107.10
SEP. 27/77																
I	0	98.6	0.0	45	11	3	15	3.7	11.3	19.0	0.73	0.96	46.2	6.52	0.00	6.52
	I				22	5	28	3.9	24.5	32.4	0.77	5.50	82.5	3.46	0.00	3.46
	II				3	0	3	0.0	3.0	3.0	1.00	13.66	114.0	32.87	0.00	32.87
	III				2	0	2	0.0	2.0	2.0	1.00	18.45	132.0	49.30	0.00	49.30
JUNE 6/78																
I	I	97.6	61.5	48	23	8	35	20.7	26.2	44.4	0.65	3.01	60.5	2.77	1.74	1.02
	II				13	4	19	7.0	13.5	24.1	0.69	10.66	89.9	5.20	3.28	1.92

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 22/76														
I	0	0.33	1346.2	0.00	0.0	0.33	1346.2	31.1	0.32	2.85	0.00	0.00	0.32	2.85
	I	0.21	857.7	0.00	0.0	0.21	857.7	130.1	1.34	11.92	0.00	0.00	1.34	11.92
	II	0.05	221.6	0.00	0.0	0.05	221.6	120.0	1.23	10.99	0.00	0.00	1.23	10.99
JUNE 8/77														
I	I	0.27	1092.0	0.00	0.0	0.27	1092.0	99.5	0.93	8.29	0.00	0.00	0.93	8.29
	II	0.03	113.4	0.00	0.0	0.03	113.4	46.7	0.44	3.89	0.00	0.00	0.44	3.89
	III	0.01	37.8	0.00	0.0	0.01	37.8	37.3	0.35	3.11	0.00	0.00	0.35	3.11
SEP. 27/77														
I	0	0.15	620.8	0.00	0.0	0.15	620.8	14.6	0.15	1.32	0.00	0.00	0.15	1.32
	I	0.29	1168.6	0.00	0.0	0.29	1168.6	156.6	1.59	14.17	0.00	0.00	1.59	14.17
	II	0.03	123.1	0.00	0.0	0.03	123.1	41.0	0.42	3.71	0.00	0.00	0.42	3.71
	III	0.02	82.1	0.00	0.0	0.02	82.1	36.9	0.37	3.34	0.00	0.00	0.37	3.34
JUNE 6/78														
I	I	0.36	1462.3	0.57	2320.7	0.98	3953.6	106.2	1.09	9.71	1.73	15.41	2.94	26.24
	II	0.19	778.6	0 31	1235.7	0.52	2105.1	200.2	2.05	18.30	3.26	29.04	5.55	49.47

Appendix table VII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
OCT. 6/78																
I	0	103.1	0.0	47	9	5	20	110.7	-0.8	41.3	0.44	1.56	53.8	5.08	0.00	5.08
	I				25	6	33	5.4	28.3	37.5	0.76	6.71	86.6	3.13	0.00	3.13
	II				3	1	5	2.3	1.5	7.5	0.67	27.32	136.5	22.91	0.00	22.91
JUNE 11/79																
I	I	93.8	73.7	50	11	2	13	1.0	11.5	15.4	0.82	5.04	76.7	6.98	5.48	1.50
	II				5	0	5	0.0	5.0	5.0	1.00	11.25	101.2	18.76	14.74	4.02
SEP. 17/79																
I	0	87.3	65.0	50	1	2						2.20	59.3			
	I				6	2	11	2.0	7.9	13.5	0.75	6.86	92.2	8.18	6.09	2.09
	II				3	1	5	2.3	1.5	7.5	0.67	19.53	122.0	18.40	14.44	4.96
SEP. 15/80																
I	0	85.2	61.7	46	18	3	22	1.2	18.4	23.6	0.83	2.57	62.4	3.94	2.86	1.09
	I				3	1	5	2.3	1.5	7.5	0.67	12.38	105.0	16.93	13.71	5.22
	II				3	0	3	0.0	3.0	3.0	1.00	19.01	121.0	28.40	20.57	7.83

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
OCT. 6/78														
I	0	0.20	784.9	0.00	0.0	0.20	784.9	31.5	0.31	2.72	0.00	0.00	0.31	2.72
	I	0.32	1291.2	0.00	0.0	0.32	1291.2	220.6	2.14	19.08	0.00	0.00	2.14	19.08
	II	0.04	176.6	0.00	0.0	0.04	176.6	122.9	1.19	10.64	0.00	0.00	1.19	10.64
JUNE 11/79														
I	I	0.14	580.1	0.18	738.3	0.67	2706.9	67.8	0.72	6.45	0.92	8.21	3.37	30.09
	II	0.05	215.7	0.07	274.6	0.25	1006.7	56.3	0.60	5.35	0.76	6.81	2.80	24.96
SEP. 17/79														
I	0													
	I	0.12	494.5	0.16	664.1	0.48	1935.8	91.5	1.05	9.35	1.41	12.56	4.10	36.61
	II	0.05	208.6	0.07	280.2	0.20	816.7	87.9	1.01	8.98	1.35	12.06	3.94	35.16
SEP. 15/80														
I	0	0.25	1026.0	0.35	1416.8	0.92	3719.8	55.6	0.65	5.82	0.80	8.03	2.36	21.09
	I	0.05	213.8	0.07	295.2	0.19	775.0	55.7	0.65	5.83	0.80	8.06	2.37	21.15
	II	0.04	142.5	0.05	196.8	0.13	516.6	57.0	0.67	5.97	0.82	8.24	2.43	21.64

Appendix table VIII. Carnation Creek Tributary 1600 coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 3/72																
I	0	136.5	0.0	40	184	61	275	134.8	252.0	298.5	0.67	1.37	47.6	0.50	0.00	0.50
	I				26	5	32	2.7	28.9	35.5	0.81	6.61	76.6	4.24	0.00	4.24
SEP. 13/72																
I	0	136.5	0.0	40	150	36	197	32.1	186.0	208.7	0.76	1.97	50.8	0.69	0.00	0.69
	I				24	9	38	30.4	27.4	49.4	0.63	7.25	80.0	3.55	0.00	3.55
SEP. 11/73																
I	0	136.5	0.0	40	88	29	131	62.9	115.4	147.1	0.67	1.10	47.6	1.04	0.00	1.04
	I				25	10	42	43.2	28.5	54.8	0.60	5.21	75.9	3.28	0.00	3.28
JUNE 20/74																
I	0	101.2	0.0	35	150	53	232	144.9	207.9	256.0	0.65	1.81	42.9	0.44	0.00	0.44
	I				27	8	38	12.5	31.3	45.4	0.70	4.03	68.2	2.64	0.00	2.64
SEP. 19/74																
I	0	127.0	0.0	40	140	35	187	34.6	174.9	198.4	0.75	1.31	49.2	0.68	0.00	0.68
	I				19	4	24	2.6	20.8	27.3	0.79	5.50	76.4	5.28	0.00	5.28

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 3/72														
I	0	2.02	8160.8	0.00	0.0	2.02	8160.8	377.1	2.76	24.64	0.00	0.00	2.76	24.64
	I	0.24	954.4	0.00	0.0	0.24	954.4	212.8	1.56	13.90	0.00	0.00	1.56	13.90
SEP. 13/72														
I	0	1.45	5851.6	0.00	0.0	1.45	5851.6	388.8	2.85	25.41	0.00	0.00	2.85	25.41
	I	0.28	1138.5	0.00	0.0	0.28	1138.5	278.4	2.04	18.19	0.00	0.00	2.04	18.19
SEP. 11/73														
I	0	0.96	3891.5	0.00	0.0	0.96	3891.5	145.0	1.06	9.47	0.00	0.00	1.06	9.47
	I	0.31	1235.3	0.00	0.0	0.31	1235.3	216.9	1.59	14.18	0.00	0.00	1.58	14.18
JUNE 20/74														
I	0	2.28	9276.1	0.00	0.0	2.29	9276.1	420.2	4.15	37.03	0.00	0.00	4.15	37.03
	I	0.38	1534.4	0.00	0.0	0.38	1534.4	154.5	1.53	13.61	0.00	0.00	1.53	13.61
SEP. 19/74														
I	0	1.47	5948.3	0.00	0.0	1.47	5948.3	244.8	1.93	17.20	0.00	0.00	1.93	17.20
	I	0.19	766.9	0.00	0.0	0.19	766.9	132.4	1.04	9.30	0.00	0.00	1.04	9.30

Appendix table VIII (cont'd) Coho

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 17/75																
I	0	88.7	0.0	39	114	39	173	95.6	153.7	192.8	0.66	0.85	42.6	0.57	0.00	0.57
	I				13	4	19	7.0	13.5	24.1	0.69	3.41	66.4	5.26	0.00	5.26
SEP. 17/75																
I	0	88.5	0.0	35	143	32	184	24.1	174.4	194.1	0.78	1.65	52.0	0.48	0.00	0.48
	I				12	4	16	9.0	12.0	24.0	0.67	5.56	78.3	4.02	0.00	4.02
JUNE 23/76																
I	0	94.0	0.0	35	152	40	206	45.1	192.9	219.7	0.74	0.75	41.9	0.46	0.00	0.46
	I				23	11	44	105.0	23.6	64.6	0.52	2.79	60.6	2.13	0.00	2.13
SEP. 22/76																
I	0	97.3	0.0	36	110	34	159	60.4	143.7	174.8	0.69	1.29	49.0	0.61	0.00	0.61
	I				14	2	16	0.6	14.8	17.9	0.86	4.45	72.3	5.96	0.00	5.96

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 17/75														
I	0	1.76	7105.0	0.00	0.0	1.76	7105.0	147.8	1.50	13.36	0.00	0.00	1.50	13.36
	I	0.19	769.9	0.00	0.0	0.19	769.9	64.0	0.65	5.78	0.00	0.00	0.65	5.78
SEP. 17/75														
I	0	2.08	8424.4	0.00	0.0	2.08	8424.4	286.3	3.23	28.65	0.00	0.00	3.23	28.65
	I	0.20	823.1	0.00	0.0	0.20	823.1	100.2	1.13	10.10	0.00	0.00	1.13	10.10
JUNE 23/76														
I	0	2.19	8881.3	0.00	0.0	2.19	8881.3	154.6	1.64	14.67	0.00	0.00	1.64	14.67
	I	0.47	1897.9	0.00	0.0	0.47	1897.9	122.9	1.31	11.66	0.00	0.00	1.31	11.66
SEP. 22/76														
I	0	1.64	6622.0	0.00	0.0	1.64	6622.0	205.7	2.11	18.86	0.00	0.00	2.11	18.86
	I	0.17	679.4	0.00	0.0	0.17	679.4	72.8	0.75	6.67	0.00	0.00	0.75	6.67

Appendix table VIII (cont'd) Cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 3/72																
I	0	136.5	0.0	40	6	3	12	36.0	0.0	24.0	0.50	17.88	111.3	11.38	0.00	11.38
SEP. 13/72																
I	I	136.5	0.0	40	1	0	1	0.0	1.0	1.0	1.00	10.73	95.0	136.50	0.00	136.50
	II				4	0	4	0.0	4.0	4.0	1.00	27.01	128.5	34.13	0.00	34.13
	III				2	0	2	0.0	2.0	2.0	1.00	72.36	181.0	68.25	0.00	68.25
SEP. 11/73																
I	II	136.5	0.0	40	3	3						42.00	166.2			
JUNE 20/74																
I	I	101.2	0.0	35	4	2	8	24.0	-1.8	17.8	0.50	3.43	63.8	12.65	0.00	12.65
	II				2	0	2	0.0	2.0	2.0	1.00	16.39	118.0	50.60	0.00	50.60
	III				2	1	4	12.0	-2.9	10.9	0.50	24.30	137.7	25.30	0.00	25.30
SEP. 19/74																
I	0	127.0	0.0	40	1	0	1	0.0	1.0	1.0	1.00	0.43	37.0	127.00	0.00	127.00
	I				4	0	4	0.0	4.0	4.0	1.00	4.16	77.0	31.75	0.00	31.75
	II				0	1						11.88	113.0			
	III				2	0	2	0.0	2.0	2.0	1.00	53.71	171.5	63.50	0.00	63.50

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 3/72														
I	0	0.09	355.8	0.00	0.0	0.09	355.8	214.6	1.57	14.02	0.00	0.00	1.57	14.02
SEP. 13/72														
I	I	0.01	29.6	0.00	0.0	0.01	29.6	10.7	0.08	0.70	0.00	0.00	0.08	0.70
	II	0.03	118.6	0.00	0.0	0.03	118.6	108.0	0.79	7.06	0.00	0.00	0.79	7.06
	III	0.01	59.3	0.00	0.0	0.01	59.3	144.7	1.06	9.46	0.00	0.00	1.06	9.46
SEP. 11/73														
I	II													
JUNE 20/74														
I	I	0.08	319.9	0.00	0.0	0.08	319.9	27.4	0.27	2.42	0.00	0.00	0.27	2.42
	II	0.02	80.0	0.00	0.0	0.02	80.0	32.8	0.32	2.89	0.00	0.00	0.32	2.89
	III	0.04	160.0	0.00	0.0	0.04	160.0	97.2	0.96	8.57	0.00	0.00	0.96	8.57
SEP. 19/74														
I	0	0.01	31.9	0.00	0.0	0.01	31.9	0.4	0.00	0.03	0.00	0.00	0.00	0.03
	I	0.03	127.5	0.00	0.0	0.03	127.5	16.7	0.13	1.17	0.00	0.00	0.13	1.17
	II													
	III	0.02	63.7	0.00	0.0	0.02	63.7	107.4	0.85	7.55	0.00	0.00	0.85	7.55

Appendix table VIII (cont'd) Cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
JUNE 17/75																
I	I	98.7	0.0	39	5	2	8	8.6	2.5	14.2	0.60	3.96	68.4	11.84	0.00	11.84
SEP. 17/75																
I	0	88.5	0.0	35	4	1	5	1.0	3.3	7.3	0.75	0.85	43.8	16.99	0.00	16.99
	I				4	0	4	0.0	4.0	4.0	1.00	4.27	76.0	22.13	0.00	22.13
	II				1	0	1	0.0	1.0	1.0	1.00	12.93	107.0	88.50	0.00	88.50
SEP. 22/76																
I	0	97.3	0.0	36	5	2	8	8.6	2.8	14.2	0.60	0.87	42.1	11.68	0.00	11.68
	I				3	0	3	0.0	3.0	3.0	1.00	6.80	84.0	32.43	0.00	32.43

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
JUNE 17/75														
I	I	0.08	341.7	0.00	0.0	0.08	341.7	33.0	0.33	2.96	0.00	0.00	0.33	2.96
SEP. 17/75														
I	0	0.06	243.9	0.00	0.0	0.06	243.9	4.5	0.05	0.46	0.00	0.00	0.05	0.46
	I	0.05	182.9	0.00	0.0	0.05	182.9	17.1	0.19	1.72	0.00	0.00	0.19	1.72
	II	0.01	45.7	0.00	0.0	0.01	45.7	12.9	0.15	1.30	0.00	0.00	0.15	1.30
SEP. 22/76														
I	0	0.09	346.6	0.00	0.0	0.09	346.6	7.3	0.07	0.66	0.00	0.00	0.07	0.66
	I	0.03	124.8	0.00	0.0	0.03	124.8	20.7	0.21	1.90	0.00	0.00	0.21	1.90

Appendix table IX. Useless Creek coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/72																
I	0	175.0	58.4	70	57	21	90	66.5	73.9	106.6	0.63	1.47	48.7	1.94	0.65	1.29
	I				2	0	2	0.0	2.0	2.0	1.00	6.90	78.5	87.50	29.20	58.30
AUG. 30/73																
I	0	173.3	79.8	71	2	2						2.67	66.3			
	I				3	0	3	0.0	3.0	3.0	1.00	6.45	79.7	57.77	26.60	31.17
AUG. 27/74																
I	0	158.6	44.0	59	20	2	22	0.3	21.1	23.4	0.90	2.10	57.5	7.14	1.98	5.16
AUG. 25/75																
I	0	144.0	43.9	54	32	10	47	18.4	38.0	55.1	0.69	2.12	58.7	3.06	0.94	2.15
	I				1	0	1	0.0	1.0	1.0	1.00	6.31	84.0	144.00	43.90	100.10
AUG. 25/76																
I	0	207.9	105.2	52	34	14	58	68.0	41.3	74.3	0.59	1.40	50.9	3.60	1.82	1.78
AUG. 29/77																
I	0	222.2	97.1	49	22	10	40	74.7	23.0	57.6	0.55	2.98	63.7	5.51	2.41	3.10

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/72														
I	0	0.52	2087.1	1.55	6254.1	0.77	3132.4	132.7	0.76	6.76	2.27	20.26	1.14	10.15
	I	0.01	46.3	0.03	138.6	0.02	69.4	13.8	0.08	0.70	0.24	2.11	0.12	1.06
AUG. 30/73														
I	0													
	I	0.02	70.1	0.04	152.1	0.03	129.9	19.4	0.11	1.00	0.24	2.16	0.21	1.85
AUG. 27/74														
I	0	0.14	567.0	0.51	2043.9	0.19	784.8	46.7	0.29	2.63	1.06	9.47	0.41	3.64
AUG. 25/75														
I	0	0.32	1308.1	1.06	4290.9	0.46	1881.8	98.7	0.69	6.11	2.25	20.05	0.99	8.79
	I	0.01	28.1	0.02	92.2	0.01	40.4	6.3	0.04	0.39	0.14	1.28	0.06	0.56
AUG. 25/76														
I	0	0.28	1125.1	0.55	2223.5	0.56	2277.7	80.7	0.39	3.46	0.77	6.84	0.79	7.01
AUG. 29/77														
I	0	0.18	734.6	0.42	1681.0	0.32	1304.8	120.3	0.54	4.83	1.24	11.05	0.96	8.58

Appendix table IX (cont'd) Coho

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/78																
I	O	203.3	105.1	49	22	3	25	0.8	23.6	27.3	0.86	2.57	60.9	7.98	4.13	3.85
AUG. 16/79																
I	O	185.5	97.0	55	56	12	71	8.2	65.5	77.0	0.79	2.32	58.7	2.60	1.36	1.24
AUG. 19/80																
I	O	210.5	105.6	48	40	18	73	128.4	50.1	95.4	0.55	2.04	55.9	2.89	1.45	1.44

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/78														
I	O	0.13	507.1	0.24	980.9	0.26	1049.8	65.4	0.32	2.87	0.62	5.55	0.67	5.94
AUG. 16/79														
I	O	0.38	1554.9	0.73	2973.6	0.81	3259.2	165.3	0.89	7.95	1.70	15.20	1.87	16.66
AUG. 19/80														
I	O	0.35	1398.2	0.69	2787.2	0.69	2805.8	148.6	0.71	6.30	1.41	12.55	1.42	12.64

Appendix table IX (cont'd) Cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/72																
I	0	175.0	58.4	70	2	1	4	12.0	-2.9	10.9	0.50	0.28	28.3	43.75	14.60	29.15
	I				17	1	18	0.1	17.5	18.6	0.94	10.08	92.8	9.69	3.23	6.46
	II				4	0	4	0.0	4.0	4.0	1.00	25.92	126.7	43.75	14.60	29.15
AUG. 30/73																
I	0	173.3	79.8	71	18	8	32	53.9	17.7	47.1	0.56	1.27	49.3	5.35	2.46	2.89
	I				12	1	13	0.1	12.4	13.8	0.92	10 12	99.5	13.24	6.10	7.14
	II				3	0	3	0.0	3.0	3.0	1.00	43.75	163.3	57.77	26.60	31.17
AUG. 27/74																
I	0	158.6	44.0	59	6	2	9	4.5	4.8	13.2	0.67	0.85	42.4	17.62	4.89	12.73
	I				24	4	29	1.6	26.3	31.3	0.83	6.72	85.3	5.51	1.53	3.98
	II				3	0	3	0.0	3.0	3.0	1.00	20.13	131.7	52.87	14.67	38.20
	III				3	0	3	0.0	3.0	3.0	1.00	44.11	161.7	52.87	14.67	38.20
AUG. 25/75																
I	0	144.0	43.9	54	9	3	14	6.8	8.3	18.7	0.67	0.58	39.3	10.67	3.25	7.41
	I				10	3	14	4.9	9.9	18.7	0.70	6.22	84.8	10.08	3.07	7.01
	II				5	2	8	8.6	2.5	14.2	0.60	16.82	119.4	17.28	5.27	12.01
	III				1	0	1	0.0	1.0	1.0	1.00	57.08	174.0	144.00	43.90	100.10

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/72														
I	0	0.02	92.5	0.07	277.2	0.03	138.8	1.1	0.01	0.06	0.02	0.17	0.01	0.09
	I	0.10	417.7	0.31	1251.7	0.15	626.9	182.1	1.04	9.28	3.12	27.81	1.56	13.93
	II	0.02	92.5	0.07	277.2	0.03	138.8	103.7	0.59	5.28	1.78	15.84	0.89	7.93
AUG. 30/73														
I	0	0.19	756.6	0.41	1643	0.35	1402.4	41.0	0.24	2.11	0.51	4.59	0.44	3.91
	I	0.08	305.7	0.16	663.5	0.14	566.6	132.4	0.76	6.82	1.66	14.80	1.42	12.63
	II	0.02	70.1	0.04	152.1	0.03	129.9	131.2	0.76	6.76	1.64	14.67	1.40	12.52
AUG. 27/74														
I	0	0.06	229.7	0.20	827.8	0.08	317.8	7.7	0.05	0.43	0.17	1.55	0.07	0.60
	I	0.18	734.9	0.65	2648.9	0.25	1017.0	193.6	1.22	10.89	4.40	39.25	1.69	15.07
	II	0.02	76 6	0.07	275.9	0.03	105.9	60.4	0.38	3.40	1.37	12.24	0.53	4.70
	III	0.02	76 6	0.07	275.9	0 03	105.9	132.3	0 83	7.44	3.01	26.83	1.15	10.30
AUG. 25/75														
I	0	0.09	379.4	0.31	1244.5	0 13	545.8	7.8	0.05	C.49	0.18	1.60	0.08	0.70
	I	0.10	401.5	0.33	1317.0	0 14	577.6	88 9	0.62	5.51	2.02	18.06	0.89	7.92
	II	0.06	234.2	0.19	768.2	0.08	336.9	140.2	0.97	8.68	3.19	28.48	1.40	12.49
	III	0.01	28.1	0.02	92.2	0.01	40.4	5 .1	0.40	3.54	1.30	11.60	0.57	5.09

Appendix table IX (cont'd) Cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 25/76																
I	I	207.9	105.2	52	2	1	4	12.0	-2.9	10.9	0.50	4.36	77.0	51.97	26.30	25.67
	II				2	2						9.31	101.0			
	III				2	0	2	0.0	2.0	2.0	1.00	38.40	157.5	103.95	52.60	51.35
AUG. 29/77																
I	0	222.2	97.1	49	3	1	5	2.3	1.5	7.5	0.67	0.71	41.7	49.38	21.58	27.80
	I				8	4	16	48.0	2.1	29.9	0.50	5.36	79.9	13.89	6.07	7.82
	II				4	0	4	0.0	4.0	4.0	1.00	15.32	116.0	55.55	24.27	31.27
	III				1	0	1	0.0	1.0	1.0	1.00	42.99	161.0	222.20	97.10	125.10
AUG. 30/78																
I	0	203.3	105.1	49	4	1	5	1.0	3.3	7.3	0.75	0.79	44.2	38.12	19.71	18.41
	I				9	2	12	1.5	9.1	14.0	0.78	6.61	88.8	17.57	9.08	8.49
	II				2	1	4	12.0	-2.9	10.9	0.50	19.88	128.3	50.83	26.27	24.55

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 25/76														
I	I	0.02	77.9	0.04	153.9	0.04	157.6	17.4	0.08	0.75	0.17	1.48	0.17	1.52
	II													
	III	0.01	38.9	0.02	76.9	0.02	78.8	76.8	0.37	3.29	0.73	6.51	0.75	6.67
AUG. 29/77														
I	0	0.02	82.0	0.05	187.6	0.04	145.6	3.2	0.01	0.13	0.03	0.29	0.03	0.23
	I	0.07	291.4	0.16	666.9	0.13	517.6	85.7	0.39	3.44	0.88	7.87	0.69	6.11
	II	0.02	72.9	0.04	166.7	0.03	129.4	61.3	0.28	2.46	0.63	5.63	0.49	4.37
	III	0.00	18.2	0.01	41.7	0.01	32.4	43.0	0.19	1.73	0.44	3.95	0.34	3.07
AUG 30/78														
I	0	0.03	106.2	0.05	205.4	0.05	219.8	4.2	0.02	0.19	0.04	0.36	0.04	0.38
	I	0.06	230.3	0.11	445.6	0.12	476.9	76.4	0.38	3.35	0.73	6.49	0.78	6.94
	II	0.02	79.6	0.04	154.0	0.04	164.8	79.5	0.39	3.49	0.76	6.75	0.81	7.22

Appendix table IX (cont'd) Cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 16/79																
I	0	185.5	97.0	55	20	2	22	0.3	21.1	23.4	0.90	0.90	45.0	8.35	4.36	3.98
	I				3	0	3	0.0	3.0	3.0	1.00	7.13	86.7	61.83	32.33	29.50
	II				1	0	1	0.0	1.0	1.0	1.00	10.15	102.0	185.50	97.00	88.50
AUG. 19/80																
I	0	210.5	105.6	48	4	3	16	1008.0	-47.5	79.5	0.25	0.65	41.0	13.16	6.60	6.56
	I				14	1	15	0.1	14.4	15.7	0.93	6.38	85.6	13.96	7.00	6.96
	II				2	0	2	0.0	2.0	2.0	1.00	16.62	118.0	105.25	52.80	52.45

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 16/79														
I	0	0.12	484.8	0.23	927.1	0.25	1016.2	20.1	0.11	0.97	0.21	1.85	0.23	2.02
	I	0.02	65.5	0.03	125.2	0.03	137.2	21.4	0.12	1.03	0.22	1.97	0.24	2.15
	II	0.01	21.8	0.01	41.7	0.01	45.7	10.2	0.05	0.49	0.10	0.93	0.11	1.02
AUG. 19/80														
I	0	0.08	307.6	0.15	613.2	0.15	617.3	10.4	0.05	0.44	0.10	0.88	0.10	0.89
	I	0.07	289.9	0.14	577.8	0.14	581.7	96.2	0.46	4.08	0.91	8.13	0.92	8.18
	II	0.01	38.5	0.02	76.6	0.02	77.2	33.2	0.16	1.41	0.31	2.81	0.32	2.83

Appendix table IX (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/72																
I	ALL	175.0	58.4	70	55	27	108	294.2	73.7	142.3	0.51	3.20	66.4	1.62	0.54	1.08
AUG. 30/73																
I	ALL	173.3	79.8	71	26	14	56	255.6	24.4	88.3	0.46	4.40	75.3	3.08	1.42	1.66
AUG. 27/74																
I	ALL	158.6	44.0	59	32	17	68	286.4	34.4	102.1	0.47	6.28	75.7	2.32	0.64	1.68
AUG. 25/75																
I	ALL	144.0	43.9	54	40	22	89	457.4	46.1	131.7	0.45	6.05	77.6	1.62	0.49	1.13
AUG. 25/76																
I	ALL	207.9	105.2	52	47	20	82	111.4	60.7	102.9	0.57	5.57	75.9	2.54	1.29	1.26

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/72														
I	ALL	0.62	2498.4	1.85	7486.7	0.93	3749.7	345.7	1.98	17.62	5.92	52.80	2.96	26.45
AUG. 30/73														
I	ALL	0.33	1315.5	0.71	2856.9	0.60	2438.3	247.9	1.43	12.76	3.11	27.71	2.65	23.65
AUG. 27/74														
I	ALL	0.43	1742.0	1.55	6279.0	0.60	2410.8	428.8	2.70	24.12	9.75	86.93	3.74	33.38
AUG. 25/75														
I	ALL	0.62	2498.1	2.02	8194.4	0.89	3593.7	537.5	3.73	33.30	12.24	109.22	5.37	47.90
AUG. 25/76														
I	ALL	0.39	1592.6	0.78	3147.4	0.80	3224.0	455.3	2.19	19.54	4.33	38.61	4.43	39.55

Appendix table IX (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 29/77 I	ALL	222.2	97.1	49	40	20	80	240.0	49.0	111.0	0.50	3.95	69.9	2.78	1.21	1.56
AUG. 30/78 I	ALL	203.3	105.1	49	72	37	148	515.5	102.7	193.5	0.49	4.03	68.4	1.37	0.71	0.66
AUG. 16/79 I	ALL	185.5	97.0	55	88	35	146	147.9	121.8	170.4	0.60	3.50	65.9	1.27	0.66	0.61
AUG. 19/80 I	ALL	210.5	105.6	48	19	20						3.27	64.5			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 29/77 I	ALL	0.36	1457.1	0.82	3334.3	0.64	2588.0	316.1	1.42	12.69	3.26	29.04	2.53	22.54
AUG. 30/78 I	ALL	0.73	2948.4	1.41	5703.3	1.51	6104.1	597.0	2.94	26.19	5.68	50.67	6.08	54.23
AUG. 16/79 I	ALL	0.79	3187.7	1.51	6096.1	1.65	6681.6	511.0	2.73	24.57	5.27	46.99	5.77	51.50
AUG. 19/80 I	ALL													

Appendix table IX (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 19/80																
I	ALL	210.5	105.6	46	7	0	7	0.0	7.0	7.0	1.00	4.65	73.4	30.07	15.09	14.99

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 19/80														
I	ALL	0.03	134.6	0.07	268.3	0.07	270.1	32.6	0.15	1.38	0.31	2.75	0.31	2.77

Appendix table X. Fredericks Creek coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 14/71																
I	0	1400.0	0.0	158	148	84	18	667	17250.4	403.9	929.3	2.22	53.4	2.10		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 14/71														
I	0	0.48	1926.9					1479.8	1.06	9.43				

APPENDIX FREDERICKS CREEK COHO

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 22/72																
I	0	529.3	132.5	64	151	73	292	735.3	238.1	346.6	0.52	2.36	53.6	1.81	0.45	1.36
	I				8	2	11	2.0	7.9	13.5	0.75	8.94	81.8	49.62	12.42	37.20
AUG. 31/73																
I	0	380.7	12.5	51	23	3	26	0.8	24.7	28.2	0.87	1.98	55.6	14.39	0.47	13.92
	I				8	1	9	0.2	8.2	10.1	0.88	4.71	74.6	41.64	1.37	40.27

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 22/72														
I	0	0.55	2235.1	2.21	8928.5	0.74	2981.4	689.9	1.30	11.63	5.21	46.44	1.74	15.51
	I	0.02	81.6	0.08	325.8	0.03	108.8	95.4	0.18	1.61	0.72	6.42	0.24	2.14
AUG. 31/73														
I	0	0.07	281.2	2.12	8563.5	0.07	290.7	52.4	0.14	1.23	4.19	37.36	0.14	1.27
	I	0.02	97.2	0.73	2960.1	0.02	100.5	43.0	0.11	1.01	3.44	30.70	0.12	1.04

Appendix table X (cont'd) Coho

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 28/74																
I	0	503.5	0.0	64	60	26	106	156.6	80.9	130.9	0.57	2.29	56.9	4.76	0.00	4.76
SEP. 19/75																
I	0	385.3	25.4	48	143	18	164	4.4	159.4	167.6	0.87	3.20	65.9	2.36	0.16	2.20
	I				3	0	3	0.0	3.0	3.0	1.00	6.04	84.3	126.60	8.47	120.13
AUG. 24/76																
I	0	442.1	26.1	48	122	32	165	35.8	153.4	177.3	0.74	1.69	52.8	2.67	0.15	2.52
	I				2	1	4	12.0	-2.9	10.9	0.50	6.17	79.0	110.53	6.26	104.26
AUG. 30/77																
I	0	434.5	73.9	48	95	30	139	56.9	123.8	153.9	0.68	3.07	64.6	3.13	0.53	2.60
AUG. 14/79																
I	0	445.2	27.9	50	120	38	176	72.7	156.6	192.7	0.68	3.12	64.1	2.84	0.16	2.38

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 28/74														
I	0	0.21	851.1	0.00	0.0	0.21	851.1	242.4	0.48	4.29	0.00	0.00	0.48	4.29
SEP. 19/75														
I	0	0.42	1718.3	6.44	26065.2	0.45	1839.6	523.7	1.36	12.12	20.62	183.91	1.46	12.98
	I	0.01	31.5	0.12	476.0	0.01	33.7	18.1	0.05	0.42	0.71	6.36	0.05	0.45
AUG. 24/76														
I	0	0.37	1513.9	6.59	26664.7	0.40	1605.0	280.2	0.63	5.65	11.16	99.57	0.67	5.99
	I	0.01	36.6	0.16	644.9	0.01	38.8	24.7	0.06	0.50	0.98	8.77	0.06	0.53
AUG. 30/77														
I	0	0.32	1293.2	1.88	7603.7	0.39	1558.3	425.6	0.98	8.74	5.76	51.37	1.18	10.53
AUG. 14/79														
I	0	0.39	1596.3	6.29	25472.9	0.42	1703.1	548.4	1.23	10.98	19.66	175.33	1.31	11.72

Appendix table X (cont'd) Rainbow and cutthroat

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 22/72																
I	0	529.3	132.5	64	5	4	25	3600.0	-95.0	145.0	0.20	0.99	42.3	21.17	5.30	15.87
	I				4	1	5	1.0	3.3	7.3	0.75	18.30	109.0	99.24	24.84	74.40

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 22/72														
I	0	0.05	191.1	0.19	763.6	0.06	255.0	24.8	0.05	0.42	0.19	1.67	0.06	0.56
	I	0.01	40.8	0.04	162.9	0.01	54.4	97.6	0.18	1.64	0.74	6.57	0.25	2.19

Appendix table X (cont'd) Rainbow

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 31/73																
I	0	380.7	12.5	51	2	0	2	0.0	2.0	2.0	1.00		49.5	190.35	6.25	184.10
	I				1	0	1	0.0	1.0	1.0	1.00		119.0	380.70	12.50	368.20
AUG. 28/74																
I	0	503.5	0.0	64	1	1						1.00	47.0			
	I				1	0	1	0.0	1.0	1.0	1.00	15.71	117.0	503.50	0.00	503.50
SEP. 19/75																
I	0	385.3	25.4	48	16	1	17	0.1	16.5	17.7	0.94	1.73	54.7	22.58	1.49	21.09
AUG. 24/76																
I	0	442.1	25.1	48	4	1	5	1.0	3.3	7.3	0.75	1.42	52.8	82.89	4.71	78.19
AUG. 30/77																
I	0	434.5	73.9	48	11	5	20	37.3	7.9	32.4	0.55	1.51	52.3	21.55	3.66	17.88
	II				1	0	1	0.0	1.0	1.0	1.00	8.39	99.0	434.50	73.90	360.60
AUG. 14/79																
I	0	445.2	27.9	50	19	6	28	11.4	21.0	34.5	0.68	1.34	52.2	16.03	1.00	15.03

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 31/73														
I	0	0.01	21.3	0.16	647.5	0.01	22.0							
	I	0.00	10.6	0.08	323.8	0.00	11.0							
AUG. 28/74														
I	0													
	I	0.00	8.0	0.00	0.0	0.00	8.0	15.7	0.03	0.28	0.00	0.00	0.03	0.28
SEP. 19/75														
I	0	0.04	178.3	0.67	2719.2	0.05	191.9	28.5	0.06	0.68	1.16	10.36	0.06	0.73
AUG. 24/76														
I	0	0.01	48.8	0.21	859.9	0.01	51.8	7.6	0.02	0.15	0.30	2.68	0.02	0.16
AUG. 30/77														
I	0	0.05	187.8	0.27	1104.4	0.00	226.3	30.5	0.07	0.63	0.41	3.68	0.08	0.75
	II	0.00	9.3	0.01	54.8	0.00	11.2	8.4	0.02	0.17	0.11	1.01	0.02	0.21
AUG. 14/79														
I	0	0.06	252.4	1.00	4028.0	0.07	269.3	37.3	0.08	0.75	1.34	11.91	0.09	0.80

Appendix table X (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 22/72																
I	ALL	529.3	132.5	529	0	0	(Not estimated but abundant)					0.34	34.2			
AUG. 31/73																
I	ALL	380.7	12.5	51	23	12	48	182.1	21.1	75.1	0.48	0.30	33.8	7.92	0.26	7.66
AUG. 28/74																
I	ALL	503.5	0.0	64	94	57	239	2313.0	142.6	335.0	0.39	0.71	39.6	2.11	0.00	2.11
SEP. 19/75																
I	ALL	385.3	25.4	48	90	35	147	135.5	124.0	170.6	0.61	0.69	40.1	2.62	0.17	2.44
AUG. 24/76																
I	ALL	442.1	25.1	48	19	16	120	39932.8	-279.3	520.0	0.16	1.15	46.9	3.67	0.21	3.47
AUG. 14/79																
I	ALL	445.2	27.9	50	866	193	1114	144.2	1090.3	1138.4	0.78	0.28	30.9	0.40	0.03	0.37

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 22/72														
I	ALL													
AUG. 31/73														
I	ALL	0.13	511.2	3.85	15569.9	0.13	528.6	14.4	0.04	0.34	1.15	10.30	0.04	0.35
AUG. 28/74														
I	ALL	0.47	1919.5	0.00	0.0	0.47	1919.5	168.7	0.34	2.99	0.00	0.00	0.34	2.99
SEP. 19/75														
I	ALL	0.38	1546.9	5.80	23465.1	0.41	1656.1	101.2	0.26	2.34	3.98	35.54	0.28	2.51
AUG. 24/76														
I	ALL	0.27	1101.5	4.79	19401.9	0.29	1167.8	138.7	0.31	2.80	5.53	49.29	0.33	2.97
AUG. 14/79														
I	ALL	2.50	10129.8	39.94	161640.0	2.67	10807.0	312.8	0.70	6.27	11.21	99.99	0.75	6.69

Appendix table X (cont'd) Cottus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/77																
I	ALL	434.5	73.9	48	109	55	220	683.2	167.4	272.7	0.50	1.59	45.7	1.97	0.34	1.64

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/77														
I	ALL	0.51	2048.3	2.98	12048.8	0.61	2469.3	350.7	0.81	7.20	4.75	42.33	0.97	8.67

Appendix table X (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 14/71																
I	ALL	1400.0	0.0	158	120	137	9	1670	235108.0	700.0	2639.6	4.50	73.1	0.84		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 14/71														
I	ALL	1.19	4826.9					7514.1	5.37	47.88				

Appendix table X (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 22/72																
I	ALL	529.3	132.5	64	78	28	122	80.9	103.7	139.7	0.64	5.20	76.3	4.35	1.09	3.26
AUG. 31/73																
I	ALL	380.7	12.5	51	35	13	56	42.4	42.7	68.7	0.63	3.60	71.3	6.84	0.22	6.61
AUG. 28/74																
I	ALL	503.5	0.0	64	120	61	244	800.4	187.5	300.6	0.49	3.57	61.6	2.06	0.00	2.06
SEP. 19/75																
I	ALL	385.3	25.4	48	106	20	131	10.4	124.2	137.1	0.81	4.03	67.5	2.95	0.18	2.78
AUG. 24/76																
I	ALL	442.1	25.1	48	21	15	74	2756.3	-31.5	178.5	0.29	4.55	73.0	6.01	0.34	5.67
AUG. 14/79																
I	ALL	445.2	27.9	50	32	11	49	27.4	38.3	59.2	0.66	5.88	77.3	9.13	0.57	8.56

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 22/72														
I	ALL	0.23	930.4	0.92	3716.5	0.31	1241.0	632.7	1.20	10.66	4.78	42.60	1.59	14.22
AUG. 31/73														
I	ALL	0.15	591.9	4.45	18027.5	0.15	612.0	200.5	0.53	4.70	16.04	143.04	0.54	4.86
AUG. 28/74														
I	ALL	0.48	1961.8	0.00	0.0	0.48	1961.8	871.9	1.73	15.45	0.00	0.00	1.73	15.45
SEP. 19/75														
I	ALL	0.34	1372.3	5.14	20816.8	0.36	1469.1	526.6	1.37	12.19	20.73	184.92	1.46	13.05
AUG. 24/76														
I	ALL	0.17	672.8	2.93	11850.8	0.18	713.3	334.7	0.76	6.75	13.33	118.93	0.80	7.16
AUG. 14/79														
I	ALL	0.11	443.3	1.75	7073.1	0.12	472.9	287.0	0.64	5.75	10.29	91.74	0.69	6.13

Appendix XI. South Pachena Creek coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	0	790.0	170.0	189	89	98	15	557	15293.6	309.5	804.2	2.65	55.6	1.42	0.31	1.11

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	0	0.70	2852.8	3.28	13256.9	0.90	3635.0	1475.7	1.87	16.66	8.68	77.43	2.38	21.23

Appendix table XI (cont'd) Coho

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 23/72																
I	0	562.0	59.0	128	130	39	186	63.3	169.8	201.6	0.70	2.13	51.9	3.03	0.32	2.71
	I				19	6	28	11.4	21.0	34.5	0.68	12.26	90.4	20.24	2.12	18.11
AUG. 28/73																
I	0	414.1	19.4	90	36	42						1.44	50.6			
	I				11	6	24	118.5	2.4	46.0	0.45	5.90	79.9	17.11	0.80	16.31
AUG. 28/74																
I	0	343.4	0.0	79	47	17	74	50.4	59.4	87.8	0.64	1.50	51.0	4.66	0.00	4.66
	I				11	5	20	37.3	7.9	32.4	0.55	5.41	77.1	17.03	0.00	17.03
SEP. 19/75																
I	0	323.8	0.0	53	168	39	219	32.1	207.5	230.1	0.77	2.02	56.6	1.48	0.00	1.48
	I				20	4	25	2.3	21.9	28.1	0.80	7.60	88.3	12.95	0.00	12.95
AUG. 24/76																
I	0	402.3	83.1	64	151	18	171	4.0	167.4	175.4	0.88	1.36	50.2	2.35	0.48	1.86
	I				19	0	19	0.0	19.0	19.0	1.00	5.68	78.1	21.17	4.37	16.80

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 23/72														
I	0	0.33	1337.3	3.15	12738.7	0.37	1494.2	395.6	0.70	6.28	6.70	59.81	0.79	7.01
	I	0.05	200.0	0.47	1904.8	0.06	223.4	340.5	0.61	5.40	5.77	51.47	0.68	6.04
AUG. 28/73														
I	0													
	I	0.06	236.5	1.25	5048.3	0.06	248.1	142.9	0.35	3.08	7.37	65.70	0.36	3.23
AUG. 28/74														
I	0	0.21	867.8	0.00	0.0	0.21	867.8	110.3	0.32	2.86	0.00	0.00	0.32	2.86
	I	0.06	237.7	0.00	0.0	0.06	237.7	109.0	0.32	2.83	0.00	0.00	0.32	2.83
SEP. 19/75														
I	0	0.68	2734.5	0.00	0.0	0.68	2734.5	441.1	1.36	12.15	0.00	0.00	1.36	12.15
	I	0.08	312.5	0.00	0.0	0.08	312.5	189.9	0.59	5.23	0.00	0.00	0.59	5.23
AUG. 24/76														
I	0	0.43	1724.6	2.06	8349.0	0.54	2173.6	233.6	0.58	5.18	2.81	25.08	0.73	6.53
	I	0.05	191.1	0.23	925.3	0.06	240.9	107.8	0.27	2.39	1.30	11.57	0.34	3.01

Appendix table XI (cont'd) Coho

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/77																
I	0	352.6	72.5	61	122	16	140	4.2	136.3	144.5	0.87	2.74	62.1	2.51	0.52	1.99
	I				16	2	18	0.5	16.9	19.7	0.88	6.78	83.5	19.28	3.96	15.32
SEP. 19/78																
I	0	375.5	67.6	64	130	7	137	0.5	136.0	138.8	0.95	2.36	59.9	2.73	0.49	2.24
	I				7	0	7	0.0	7.0	7.0	1.00	9.23	95.6	53.64	9.66	43.99
AUG. 15/79																
I	0	371.1	23.8	63	419	45	469	8.4	463.6	475.2	0.89	1.26	48.5	0.79	0.05	0.74
	I				18	2	20	0.4	19.0	21.5	0.89	7.99	88.8	18.33	1.18	17.15
AUG. 20/80																
I	0	343.6	37.2	62	287	43	338	14.2	330.0	345.1	0.85	1.72	52.9	1.02	0.11	0.91
	I				14	3	18	2.0	15.0	20.7	0.79	7.47	86.8	19.28	2.09	17.20

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/77														
I	0	0.40	1611.6	1.94	7838.1	0.50	2028.8	384.7	1.09	9.73	5.31	47.33	1.37	12.25
	I	0.05	209.9	0.25	1020.7	0.07	264.2	124.0	0.35	3.14	1.71	15.26	0.44	3.95
SEP. 19/78														
I	0	0.37	1480.8	2.03	8225.6	0.45	1805.9	324.3	0.86	7.70	4.80	42.79	1.05	9.39
	I	0.02	75.4	0.10	419.1	0.02	92.0	64.6	0.17	1.54	0.96	8.53	0.21	1.87
AUG. 15/79														
I	0	1.26	5119.2	19.72	79820.2	1.35	5470.0	590.7	1.59	14.20	24.82	221.37	1.70	15.17
	I	0.05	220.8	0.85	3443.4	0.06	236.0	161.8	0.44	3.89	6.80	60.65	0.47	4.16
AUG. 20/80														
I	0	0.98	3976.1	9.07	36725.2	1.10	4458.8	580.4	1.69	15.07	15.60	139.17	1.89	16.90
	I	0.05	209.9	0.48	1938.4	0.06	235.3	133.1	0.39	3.46	3.58	31.93	0.43	3.88

Appendix table XI (cont'd) Rainbow

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	0	790.0	170.0	189	32	54	5	303	11646.3	86.7	518.3	1.48	48.8	2.61	0.56	2.05
	I				7	10	2	29	156.4	4.3	54.3	11.90	94.1	26.93	5.80	21.14
	II				3	3	2	5	1.8	2.7	8.0	33.75	132.3	148.13	31.88	116.25

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	0	0.38	1549.6	1.78	7201.3	0.49	1974.5	447.7	0.57	5.06	2.63	23.49	0.72	6.44
	I	0.04	150.3	0.17	698.3	0.05	191.5	349.1	0.44	3.94	2.05	18.32	0.56	5.02
	II	0.01	27.3	0.03	127.0	0.01	34.8	180.0	0.23	2.03	1.06	9.44	0.29	2.59

APPENDIX SOUTH PACHENA CREEK RAINBOW & CUTTHROAT

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 23/72																
I	0	562.0	59.0	128	27	14	56	205.1	27.4	84.7	0.48	1.10	44.4	10.02	1.05	8.97
	I				20	6	29	9.7	22.3	34.8	0.70	7.84	82.6	19.67	2.06	17.60
	II				7	2	10	2.8	6.4	13.2	0.71	34.93	134.7	57.35	6.02	51.33

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 23/72														
I	0	0.10	403.8	0.95	3846.5	0.11	451.2	61.7	0.11	0.98	1.05	9.33	0.12	1.09
	I	0.05	205.7	0.48	1959.8	0.06	229.9	224.0	0.40	3.56	3.80	33.87	0.45	3.97
	II	0.02	70.6	0.17	672.2	0.02	78.8	342.3	0.61	5.43	5.80	51.75	0.68	6.07

Appendix table XI (cont'd) Rainbow

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 28/73																
I	0	414.1	19.4	90	38	25	111	1990.7	21.8	200.3	0.34	1.02	47.9	3.73	0.17	3.55
	I				2	2						12.08	10.4			
AUG. 28/74																
I	0	343.4	0.0	79	9	4	16	27.0	5.8	26.6	0.56	0.85	43.7	21.20	0.00	21.20
	I				5	1	6	0.6	4.7	7.8	0.80	8.47	96.7	54.94	0.00	54.94
SEP. 19/75																
I	0	323.8	0.0	53	46	13	64	17.8	55.7	72.6	0.72	1.17	49.5	5.05	0.00	5.05
AUG. 24/76																
I	0	402.3	83.1	64	43	11	58	11.5	51.0	64.6	0.74	0.92	46.2	6.96	1.44	5.52
	I				1	1						4.78	80.5			
AUG. 30/77																
I	0	352.6	72.5	61	41	18	73	114.8	51.7	94.5	0.56	1.43	52.8	4.82	0.99	3.83
	I				2	1	4	12.0	-2.9	10.9	0.50	7.17	90.0	88.15	18.13	70.03

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 28/73														
I	0	0.27	1085.6	5.73	23171.6	0.28	1138.9	113.0	0.27	2.43	5.83	51.97	0.29	2.55
	I													
AUG. 28/74														
I	0	0.05	190.9	0.00	0.0	0.05	190.9	13.8	0.04	0.36	0.00	0.00	0.04	0.36
	I	0.02	73.7	0.00	0.0	0.02	73.7	52.9	0.15	1.37	0.00	0.00	0.15	1.37
SEP. 19/75														
I	0	0.20	801.4	0.00	0.0	0.20	801.4	75.1	0.23	2.07	0.00	0.00	0.23	2.07
AUG. 24/76														
I	0	0.14	581.3	0.70	2814.0	0.18	732.6	53.2	0.13	1.18	0.64	5.71	0.17	1.49
	I													
AUG. 30/77														
I	0	0.21	838.9	1.01	4079.8	0.26	1056.0	104.6	0.30	2.65	1.44	12.87	0.37	3.33
	I	0.01	45.9	0.06	223.3	0.01	57.8	28.7	0.08	0.73	0.40	3.53	0.10	0.91

Appendix table XI (cont'd) Rainbow

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 19/78																
I	0	375.5	67.6	64	48	3	51	0.3	50.2	52.2	0.94	1.43	52.6	7.33	1.32	6.01
	I				2	0	2	0.0	2.0	2.0	1.00	13.29	107.0	187.75	33.80	153.95
AUG. 15/79																
I	0	371.1	23.8	63	84	13	99	4.6	95.1	103.6	0.85	1.15	48.3	3.73	0.24	3.49
	I				7	0	7	0.0	7.0	7.0	1.00	7.71	90.4	53.01	3.40	49.61
AUG. 20/80																
I	0	343.6	37.2	62	45	16	70	44.7	56.5	83.2	0.64	1.06	46.3	4.82	0.53	4.30
	I				10	1	11	0.2	10.3	11.9	0.90	12.94	107.5	30.92	3.36	27.56
	II				0	1						30.00	144.0			
	IV				0	1						108.04	221.0			

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 19/78														
I	0	0.14	551.8	0.76	3065.2	0.17	673.0	73.0	0.19	1.73	1.08	9.63	0.24	2.12
	I	0.01	21.6	0.03	119.7	0.01	26.3	26.6	0.07	0.63	0.39	3.51	0.09	0.77
AUG. 15/79														
I	0	0.27	1083.8	4.18	16898.8	0.29	1158.1	114.3	0.31	2.75	4.80	42.82	0.33	2.93
	I	0.02	76.3	0.29	1190.3	0.02	81.6	54.0	0.15	1.30	2.27	20.22	0.16	1.39
AUG. 20/80														
I	0	0.20	822.4	1.88	7596.6	0.23	922.3	75.1	0.22	1.95	2.02	18.00	0.26	2.19
	I	0.03	130.9	0.30	1208.8	0.04	146.8	143.8	0.42	3.73	3.87	34.48	0.47	4.19
	II													
	IV													

Appendix table XI (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71 I	ALL	790.0	170.0	189	5	6	1	21	105.0	0.5	41.5	4.90	74.8	37.62	8.10	29.52

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71 I	ALL	0.03	107.6	0.12	499.9	0.03	137.1	102.9	0.13	1.16	0.61	5.40	0.17	1.48

Appendix table XI (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 23/72																
I	ALL	562.0	59.0	128	22	11	44	132.0	21.0	67.0	0.50	0.34	34.2	12.77	1.34	11.43
AUG. 28/73																
I	ALL	414.1	19.4	90	27	6	35	4.5	30.5	38.9	0.78	2.65	64.5	11.83	0.56	11.37
AUG. 28/74																
I	ALL	343.4	0.0	79	13	11	84	30673.5	-265.8	434.8	0.15	2.32	60.5	4.06	0.00	4.06
SEP. 19/75																
I	ALL	323.8	0.0	53	9	6	27	540.0	-19.5	73.5	0.33	4.01	70.6	11.99	0.00	11.99
AUG. 24/76																
I	ALL	402.3	83.1	64	46	30	132	2208.5	38.3	226.2	0.35	2.20	58.3	3.04	0.63	2.41

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 23/72														
I	ALL	0.08	316.8	0.75	3018.1	0.09	354.0	15.0	0.03	0.24	0.25	2.26	0.03	0.27
AUG. 28/73														
I	ALL	0.08	339.3	1.79	7241.7	0.09	355.9	92.0	0.22	1.98	4.74	42.30	0.23	2.08
AUG. 28/74														
I	ALL	0.25	995.8	0.00	0.0	0.25	995.8	195.7	0.57	5.08	0.00	0.00	0.57	5.08
SEP. 19/75														
I	ALL	0.08	337.5	0.00	0.0	0.08	337.5	108.4	0.33	2.99	0.00	0.00	0.33	2.99
AUG. 24/76														
I	ALL	0.33	1330.4	1.59	6440.6	0.41	1676.7	291.0	0.72	6.45	3.50	31.24	0.91	8.13

Appendix table XI (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/77																
I	ALL	352.6	72.5	61	64	29	117	213.5	87.8	146.3	0.55	2.49	61.3	3.01	0.62	2.39
SEP. 19/78																
I	ALL	375.5	67.6	64	80	32	133	138.3	109.8	156.9	0.60	3.38	66.4	2.82	0.51	2.31
AUG. 15/79																
I	ALL	371.1	23.8	63	26	28						3.31	66.2			
AUG. 20/80																
I	ALL	343.6	37.2	62	32	13	54	59.8	38.4	69.4	0.59	3.51	64.8	6.38	0.69	5.69

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/77														
I	ALL	0.33	1343.2	1.61	6532.6	0.42	1690.9	291.6	0.83	7.38	4.02	35.88	1.04	9.29
SEP. 19/78														
I	ALL	0.36	1437.0	1.97	7982.2	0.43	1752.5	451.2	1.20	10.72	6.67	59.54	1.47	13.07
AUG. 15/79														
I	ALL													
AUG. 20/80														
I	ALL	0.16	634.8	1.45	5863.2	0.18	711.9	189.4	0.55	4.92	5.09	45.41	0.62	5.51

Appendix table XI (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71 I	ALL	790.0	170.0	189	65	63	2	1408	472384.0	33.4	2782.6	10.80	94.0	0.56	0.12	0.44

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71 I	ALL	1.78	7212.9	8.28	33518.7	2.27	9190.6	15206.4	19.25	171.698	89.45	797.89	24.53	218.77

Appendix table XI (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 23/72																
I	ALL	562.0	59.0	126	96	55	225	1489.7	147.6	302.0	0.43	7.80	86.7	2.50	0.26	2.24
AUG. 28/73																
I	ALL	414.1	19.4	90	33	11	50	24.7	39.6	59.4	0.67	6.00	83.2	8.37	0.39	7.97
AUG. 28/74																
I	ALL	343.4	0.0	79	46	17	73	54.5	58.2	87.7	0.63	9.45	90.2	4.71	0.00	4.71
SEP. 19/75																
I	ALL	323.8	0.0	53	46	27	111	864.1	52.6	170.2	0.41	8.29	88.6	2.91	0.00	2.91
AUG. 24/76																
I	ALL	402.3	83.1	64	53	24	97	176.1	70.3	123.4	0.55	7.04	82.3	4.15	0.86	3.30

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 23/72														
I	ALL	0.40	1618.7	3.81	15418.4	0.45	1808.5	1753.3	3.12	27.83	29.72	265.07	3.49	31.08
AUG. 28/73														
I	ALL	0.12	483.8	2.55	10326.1	0.13	507.5	297.0	0.72	6.40	15.31	136.56	0.75	6.71
AUG. 28/74														
I	ALL	0.21	859.9	0.00	0.0	0.21	859.9	669.4	2.01	17.91	0.00	0.00	2.01	17.91
SEP. 19/75														
I	ALL	0.34	1391.9	0.00	0.0	0.34	1391.9	923.3	2.85	25.43	0.00	0.00	2.85	25.43
AUG. 24/76														
I	ALL	0.24	974.4	1.17	4717.2	0.30	1228.1	681.6	1.69	15.11	8.20	73.16	2.14	19.06

Appendix table XI (cont'd) Cottus asper

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 30/77																
I	ALL	352.6	72.5	61	36	18	72	216.0	42.6	101.4	0.50	7.78	86.2	4.90	1.01	3.89
SEP. 19/78																
I	ALL	375.5	67.6	64	50	23	93	181.7	65.6	119.5	0.54	10.52	92.1	4.06	0.73	3.33
AUG. 15/79																
I	ALL	371.1	23.8	63	53	18	80	43.1	67.1	93.4	0.66	8.89	89.7	4.62	0.30	4.33
AUG. 20/80																
I	ALL	343.6	37.2	62	61	20	91	42.7	77.7	103.8	0.67	6.90	80.2	3.79	0.41	3.38

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 30/77														
I	ALL	0.20	826.4	0.99	4019.1	0.26	1040.3	559.8	1.59	14.16	7.72	68.88	2.00	17.83
SEP. 19/78														
I	ALL	0.25	997.9	1.37	5543.2	0.30	1217.0	974.5	2.60	23.15	14.42	128.59	3.16	28.23
AUG. 15/79														
I	ALL	0.22	875.2	3.37	13647.1	0.23	935.2	713.3	1.92	17.14	29.87	267.32	2.08	18.32
AUG. 20/80														
I	ALL	0.26	1068.9	2.44	9873.4	0.30	1198.7	626.0	1.82	16.25	16.83	150.11	2.04	18.23

Appendix table XII. North Pachena Creek coho.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	O	995.0	0.0	155	65	52	12	269	3903.1	144.1	394.0	2.54	55.3	3.70		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	O	0.27	1094.4					683.5	0.69	6.13				

APPENDIX NORTH PACHENA CREEK RAINBOW

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	O	995.0	0.0	155	28	17	3	131	2649.1	27.6	233.4	1.76	52.9	7.62		
	I				4	6	1	18	72.9	0.4	34.6	17.07	105.9	56.86		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	O	0.13	530.8					229.7	0.23	2.06				
	I	0.02	71.2					298.7	0.30	2.68				

Appendix table XII (cont'd) Cottus aleuticus

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	ALL	995.0	0.0	155	2	5	0	18	135.0	-5.2	41.2	9.00	89.6	55.28		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	ALL	0.02	73.2					162.0	0.16	1.45				

APPENDIX NORTH PACHENA CREEK COTTUS ASPER

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 13-14/71																
I	ALL	995.0	0.0	155	23	24	1	300	27600.0	-32.3	632.3	17.50	115.8	3.32		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 13-14/71														
I	ALL	0.30	1220.2					5250.0	5.28	47.07				

Appendix table XIII. Ritherdon Creek cutthroat.

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	M	C	R	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
SEP. 9/71																
I	0	598.0	-	116	70	78	6	801	73145.9	260.4	1342.2	2.18	56.5	0.75		
	I				21	24	5	92	912.3	31.3	152.1	9.54	90.7	6.52		
	II				8	8	2	27	121.5	5.0	49.0	15.57	106.1	22.15		
	III				7	9	2	27	124.4	4.4	49.0	28.64	131.1	22.43		

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
SEP. 9/71														
I	0	1.34	5422.7					1746.8	2.92	26.06				
	I	0.15	620.4					874.5	1.46	13.04				
	II	0.05	182.7					420.4	0.70	6.27				
	III	0.04	180.5					763.7	1.28	11.39				

Appendix table XIII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 3/72																
I	0	347.4	82.6	85	42	19	77	138.8	53.1	100.3	0.55	1.38	48.5	4.53	1.08	3.45
	I				88	20	114	15.6	106.0	121.8	0.77	7.87	84.5	3.05	0.73	2.33
	II				13	5	21	18.6	12.5	29.7	0.62	18.50	117.6	16.44	3.91	12.53
	III				3	0	3	0.0	3.0	3.0	1.00	49.00	166.0	115.80	27.53	88.27
AUG. 30/73																
I	0	191.7	38.3	59	130	24	159	11.9	152.5	166.3	0.82	1.83	57.0	1.20	0.24	0.96
	I				24	1	25	0.1	24.6	25.5	0.96	10.96	101.8	7.65	1.53	6.13
	II				2	0	2	0.0	2.0	2.0	1.00	33.09	153.5	95.85	19.15	76.70
AUG. 29/74																
I	0	234.2	46.4	61	75	30	125	129.6	102.2	147.8	0.60	1.58	52.6	1.87	0.37	1.50
	I				36	5	42	1.4	39.4	44.2	0.86	7.70	92.7	5.60	1.11	4.49
	II				5	1	6	0.6	4.7	7.8	0.80	22.50	133.7	37.47	7.42	30.05
	III				3	0	3	0.0	3.0	3.0	1.00	45.32	171.0	78.07	15.47	62.60
SEP. 20/75																
I	0	216.5	36.6	60	86	26	123	43.2	110.1	136.4	0.70	1.88	56.7	1.76	0.30	1.46
	I				16	6	26	20.3	16.6	34.6	0.63	8.63	95.4	8.46	1.43	7.03
	II				7	1	8	0.3	7.1	9.3	0.86	22.60	133.1	26.51	4.48	22.03

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 3/72														
I	0	0.22	893.5	0.93	3757.7	0.29	1172.2	105.8	0.30	2.72	1.28	11.43	0.40	3.57
	I	0.33	1326.7	1.38	5579.7	0.43	1740.5	896.3	2.58	23.01	10.85	96.79	3.38	30.19
	II	0.06	246.1	0.26	1035.0	0.08	322.9	390.8	1.12	10.03	4.73	42.20	1.48	13.16
	III	0.01	34.9	0.04	147.0	0.01	45.8	147.0	0.42	3.77	1.78	15.87	0.56	4.95
AUG. 30/73														
I	0	0.83	3365.8	4.16	16846.7	1.04	4206.2	291.9	1.52	13.58	7.62	67.98	1.90	16.97
	I	0.13	528.7	0.65	2646.2	0.16	660.7	274.4	1.43	12.77	7.17	63.92	1.79	15.96
	II	0.01	42.2	0.05	211.3	0.01	52.8	66.2	0.35	3.08	1.73	15.41	0.43	3.85
AUG. 29/74														
I	0	0.53	2160.0	2.69	10902.5	0.67	2693.7	197.0	0.84	7.50	4.25	37.87	1.05	9.36
	I	0.18	722.4	0.90	3646.4	0.22	900.9	322.1	1.38	12.27	6.94	61.92	1.72	15.30
	II	0.03	108.0	0.13	545.1	0.03	134.7	140.6	0.60	5.36	3.03	27.03	0.75	6.68
	III	0.01	51.8	0.06	261.7	0.02	64.6	136.0	0.58	5.18	2.93	26.14	0.72	6.46
SEP. 20/75														
I	0	0.57	2304.2	3.37	13630.1	0.69	2773.0	231.8	1.07	9.55	6.33	56.48	1.29	11.49
	I	0.12	478.5	0.70	2830.7	0.14	575.9	220.9	1.02	9.10	6.03	53.83	1.23	10.95
	II	0.04	152.7	0.22	903.0	0.05	183.7	184.5	0.85	7.60	5.04	44.98	1.03	9.15

Appendix table XIII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 26/76																
I	0	247.5	31.9	63	34	12	53	32.7	41.1	64.0	0.65	1.14	47.8	4.71	0.61	4.10
	I				19	2	21	0.4	20.0	22.4	0.89	5.49	81.6	11.66	1.50	10.15
	II				9	0	9	0.0	9.0	9.0	1.00	13.88	111.7	27.50	3.54	23.96
	III				2	0	2	0.0	2.0	2.0	1.00	27.06	139.0	123.75	15.95	107.80
AUG. 31/77																
I	0	251.1	34.7	57	32	6	39	3.1	35.9	42.9	0.81	1.73	54.9	6.38	0.88	5.49
	I				7	2	10	2.8	6.4	13.2	0.71	9.43	96.2	25.62	3.54	22.08
	II				6	2	9	4.5	4.8	13.2	0.67	17.35	121.5	27.90	3.86	24.04
	III				0	1						39.43	152.0			
AUG. 30/78																
I	0	294.0	57.6	58	13	3	17	2.4	13.8	20.0	0.77	1.92	56.0	17.40	3.41	13.99
	I				9	3	14	6.8	8.3	18.7	0.67	9.21	98.8	21.78	4.27	17.51
	II				1	2						21.60	129.0			
	III				1	0	1	0.0	1.0	1.0	1.00	51.05	171.0	294.00	57.60	236.40

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 26/76														
I	0	0.21	859.2	1.65	6666.2	0.24	986.3	60.1	0.24	2.17	1.88	16.81	0.28	2.49
	I	0.09	347.2	0.67	2694.0	0.10	398.6	116.5	0.47	4.20	3.65	32.58	0.54	4.82
	II	0.04	147.2	0.28	1141.8	0.04	168.9	125.0	0.50	4.50	3.92	34.94	0.58	5.17
	III	0.01	32.7	0.06	253.7	0.01	37.5	54.1	0.22	1.95	1.70	15.13	0.25	2.24
AUG. 31/77														
I	0	0.16	634.8	1.14	4593.4	0.18	736.6	68.1	0.27	2.42	1.96	17.52	0.31	2.81
	I	0.04	157.9	0.28	1143.0	0.05	183.3	92.4	0.37	3.28	2.66	23.75	0.43	3.81
	II	0.04	145.1	0.26	1049.7	0.04	168.3	156.1	0.62	5.55	4.50	40.13	0.72	6.43
	III													
AUG. 30/78														
I	0	0.06	232.6	0.29	1187.4	0.07	289.3	32.5	0.11	0.99	0.56	5.04	0.14	1.23
	I	0.05	185.8	0.23	948.5	0.06	231.1	124.3	0.42	3.77	2.16	19.25	0.53	4.69
	II													
	III	0.00	13.8	0.02	70.3	0.00	17.1	51.1	0.17	1.55	0.89	7.91	0.22	1.93

Appendix table XIII (cont'd)

SECTION	AGE	AREA (SQ.M) WETTED	AREA (SQ.M) RIFFLE	SECT. LEN (M)	C1	C2	POP. N	VAR. N	95 PERCENT CONF. LIMITS LOWER	95 PERCENT CONF. LIMITS UPPER	P	MEAN WEIGHT (GM)	MEAN LENGTH (MM)	AREA/FISH (SQ.M) WETTED	AREA/FISH (SQ.M) RIFFLE	AREA/FISH (SQ.M) POOL
AUG. 13/79																
I	0	199.7	15.0	46	22	0	22	0.0	22.0	22.0	1.00	1.45	52.9	9.08	0.68	8.40
	I				2	2						11.55	107.0			
	II				4	2	8	24.0	-1.8	17.8	0.50	20.11	126.8	24.96	1.88	23.09
	III				2	0	2	0.0	2.0	2.0	1.00	62.26	185.0	99.85	7.50	92.35
AUG. 21/80																
I	0	288.8	18.9	57	14	15						1.75	54.5			
	I				7	2	10	2.8	6.4	13.2	0.71	12.41	106.8	29.47	1.93	27.54
	II				1	0	1	0.0	1.0	1.0	1.00	46.97	168.0	288.80	18.90	269.90
	III				1	0	1	0.0	1.0	1.0	1.00	75.62	200.0	288.80	18.90	269.90

SECTION	AGE	WETTED FISH/ SQ. M	WETTED FISH/ ACRE	RIFFLE FISH/ SQ. M	RIFFLE FISH/ ACRE	POOL FISH/ SQ. M	POOL FISH/ ACRE	WETTED TOTAL WT (GM)	WETTED GM/ SQ. M	WETTED LB/ ACRE	RIFFLE GM/ SQ. M	RIFFLE LB/ ACRE	POOL GM/ SQ. M	POOL LB/ ACRE
AUG. 13/79														
I	0	0.11	445.8	1.47	5935.6	0.12	482.0	31.8	0.16	1.42	2.12	18.93	0.17	1.54
	I													
	II	0.04	162.1	0.53	2158.4	0.04	175.3	160.9	0.81	7.18	10.72	95.65	0.87	7.77
	III	0.01	40.5	0.13	539.6	0.01	43.8	124.5	0.62	5.56	8.30	74.05	0.67	6.01
AUG. 21/80														
I	0													
	I	0.03	137.3	0.52	2098.4	0.04	146.9	121.6	0.42	3.76	6.43	57.39	0.45	4.02
	II	0.00	14.0	0.05	214.1	0.00	15.0	47.0	0.16	1.45	2.49	22.17	0.17	1.55
	III	0.00	14.0	0.05	214.1	0.00	15.0	75.6	0.26	2.34	4.00	35.69	0.28	2.50

Appendix table XIV. Fish length data.

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	70	1607	150m	PS	COHO	0	51	49.176	4.502	0.630	9.004	20.268	47.909	50.444	40	62
LOGG	CARN	70	0208	35m	PS	COHO	0	44	48.614	5.504	0.830	11.007	30.289	46.946	50.281	40	64
LOGG	CARN	70	0508	500m	SF	COHO	0	92	51.043	5.703	0.595	11.406	32.526	49.866	52.221	37	63
LOGG	CARN	70	0508	2000	SF	COHO	0	96	48.396	5.414	0.553	10.829	29.315	47.302	49.490	40	63
LOGG	CARN	70	0508	TOTL	SF	COHO	0	190	49.758	5.706	0.414	11.411	32.555	48.938	50.577	37	63
LOGG	CARN	70	1908	100m	PS	COHO	1	26	75.808	9.394	1.842	18.787	88.242	72.013	79.603	64	98
LOGG	CARN	70	1908	TOTL	PS	COHO	0	26	50.692	6.098	1.196	12.195	37.182	48.229	53.156	40	64
LOGG	CARN	70	1409	400m	SF	COHO	0	57	48.053	4.631	0.613	9.261	21.444	46.826	49.279	40	62
LOGG	CARN	70	1409	2000	SF	COHO	0	266	54.440	7.420	0.455	14.840	55.055	53.539	55.341	38	80
LOGG	CARN	70	1409	TOTL	SF	COHO	0	270	50.274	5.758	0.350	11.517	33.159	49.580	50.968	40	66
LOGG	CARN	70	1409	TOTL	SF	COHO	1	47	76.979	6.539	0.954	13.078	42.760	75.062	78.896	66	93
LOGG	CARN	70	0608	TOTL	SF	RBT	0	23	40.304	3.878	0.809	7.756	15.040	38.630	41.978	35	49
LOGG	CARN	70	0608	TOTL	SF	RBT	1	18	71.778	4.066	0.958	8.133	16.536	69.755	73.800	64	77
LOGG	CARN	70	0608	TOTL	SF	RBT	2	32	94.531	9.692	1.713	19.384	93.934	91.053	98.009	81	113
LOGG	CARN	70	0608	TOTL	SF	RBT	3	13	139.077	18.464	5.121	36.928	340.910	127.913	150.241	118	180
LOGG	CARN	70	1908	TOTL	PS	RBT	0	36	37.972	3.103	0.517	6.206	9.628	36.922	39.022	32	46
LOGG	CARN	70	1409	TOTL	SF	RBT	0	48	49.771	4.392	0.634	8.783	19.287	48.497	51.045	39	57
LOGG	CARN	70	1409	TOTL	SF	RBT	1	29	73.897	7.223	1.341	14.445	52.167	71.147	76.646	61	90
LOGG	CARN	70	1409	TOTL	SF	RBT	2	50	95.740	12.691	1.795	25.381	161.053	92.133	99.347	74	121
LOGG	CARN	70	1409	TOTL	SF	RBT	3	9	161.111	34.294	11.431	68.589	1176.111	134.704	187.518	128	228
LOGG	CARN	71	1703	FENC	TR	COHO	1	23	69.174	4.830	1.007	9.661	23.332	67.089	71.259	60	77
LOGG	CARN	71	1703	FENC	TR	COHO	2	6	80.167	14.359	5.862	28.717	206.167	65.102	95.232	70	108
LOGG	CARN	71	2403	FENC	TR	COHO	1	31	69.935	5.372	0.965	10.745	28.862	67.967	71.904	60	77
LOGG	CARN	71	2403	FENC	TR	COHO	2	10	82.700	10.001	3.162	20.001	100.011	75.553	89.847	70	100
LOGG	CARN	71	3103	FENC	TR	COHO	1	35	70.543	5.221	0.882	10.441	27.255	68.751	72.334	60	79
LOGG	CARN	71	3103	FENC	TR	COHO	2	24	86.583	11.017	2.249	22.035	121.384	81.928	91.239	72	116
LOGG	CARN	71	0704	FENC	TR	COHO	1	40	70.850	5.847	0.924	11.693	34.182	68.983	72.717	61	83
LOGG	CARN	71	0704	FENC	TR	COHO	2	10	92.600	12.518	3.959	25.037	156.711	83.653	101.547	82	115
LOGG	CARN	71	1404	FENC	TR	COHO	1	66	71.682	6.726	0.828	13.451	45.236	70.034	73.329	60	92
LOGG	CARN	71	1404	FENC	TR	COHO	2	26	97.731	12.207	2.394	24.413	149.005	92.799	102.662	83	130
LOGG	CARN	71	2104	FENC	TR	COHO	1	61	72.344	7.508	0.961	15.015	56.363	70.422	74.267	60	89
LOGG	CARN	71	2104	FENC	TR	COHO	2	17	94.000	8.660	2.100	17.321	75.000	89.547	98.453	84	113
LOGG	CARN	71	2804	FENC	TR	COHO	1	65	72.785	7.238	0.898	14.476	52.390	70.998	74.571	60	93
LOGG	CARN	71	2804	FENC	TR	COHO	2	28	100.679	10.562	1.996	21.124	111.560	96.587	104.771	85	122
LOGG	CARN	71	0505	FENC	TR	COHO	1	12	73.333	9.432	2.723	18.865	88.970	67.343	79.324	60	91
LOGG	CARN	71	0505	FENC	TR	COHO	2	24	112.500	11.762	2.401	23.524	138.348	107.530	117.470	93	150
LOGG	CARN	71	2004	TOTL	SF	COHO	0	24	37.375	1.313	0.268	2.625	1.723	36.820	37.930	34	39
LOGG	CARN	71	0106	TOTL	SF	COHO	0	154	37.656	1.134	0.091	2.268	1.286	37.475	37.837	33	41
LOGG	CARN	71	1006	TOTL	SF	COHO	0	45	39.978	2.650	0.395	5.300	7.022	39.184	40.772	36	51
LOGG	CARN	71	1806	TOTL	PS	COHO	0	120	38.683	1.506	0.137	3.012	2.269	38.411	38.956	33	42
LOGG	CARN	71	3006	TOTL	SF	COHO	0	42	41.643	3.252	0.502	6.504	10.577	40.634	42.652	38	52
LOGG	CARN	71	1207	TOTL	PS	COHO	0	113	41.319	3.780	0.356	7.561	14.290	40.614	42.023	36	61
LOGG	CARN	71	2707	TOTL	PS	COHO	0	41	43.049	3.943	0.616	7.886	15.548	41.805	44.293	38	55
LOGG	CARN	71	0408	TOTL	SF	COHO	0	189	47.381	8.176	0.595	16.352	66.843	46.203	48.558	38	68
LOGG	CARN	71	0408	TOTL	SF	COHO	1	109	73.128	8.387	0.803	16.773	70.335	71.538	74.719	57	94
LOGG	CARN	71	2408	0620	PS	COHO	0	29	43.276	2.902	0.539	5.804	8.421	42.171	44.381	39	48
LOGG	CARN	71	2408	1200	PS	COHO	0	55	41.836	2.363	0.319	4.726	5.584	41.199	42.474	38	47
LOGG	CARN	71	2408	TOTL	PS	COHO	0	83	42.373	2.626	0.288	5.252	6.895	41.800	42.947	38	48
LOGG	CARN	71	1509	23	SF	COHO	0	249	48.819	6.148	0.390	12.295	37.794	48.048	49.591	38	66
LOGG	CARN	71	1509	23	SF	COHO	1	44	78.295	7.331	1.105	14.663	53.748	76.074	80.517	65	98

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	71	1509	468	SF	COHO	0	260	47.565	5.595	0.347	11.190	31.305	46.878	48.252	38	66
LOGG	CARN	71	1509	468	SF	COHO	1	32	77.625	8.335	1.473	16.669	69.468	74.634	80.616	64	96
LOGG	CARN	71	1509	TOTL	SF	COHO	0	511	48.094	5.784	0.256	11.569	33.458	47.587	48.601	38	66
LOGG	CARN	71	1509	TOTL	SF	COHO	1	79	77.443	8.106	0.912	16.213	65.711	75.628	79.258	62	98
LOGG	CARN	71	0610	0300	PS	COHO	0	35	45.429	4.487	0.758	8.974	20.134	43.889	46.968	35	57
LOGG	CARN	71	0610	0890	PS	COHO	0	22	46.091	4.093	0.873	8.186	16.753	44.276	47.906	38	53
LOGG	CARN	71	0610	1450	PS	COHO	0	35	44.800	3.324	0.562	6.647	11.047	43.660	45.940	40	56
LOGG	CARN	71	0610	TOTL	PS	COHO	0	92	45.348	3.971	0.414	7.942	15.768	44.528	46.168	35	57
LOGG	CARN	71	28 7	TOTL	PS	RBT	0	34	32.324	0.945	0.162	1.889	0.892	31.995	32.652	30	35
LOGG	CARN	71	0308	0400	SF	RBT	0	34	35.618	3.652	0.626	7.303	13.334	34.346	36.889	32	46
LOGG	CARN	71	0308	2000	SF	RBT	0	30	36.233	4.500	0.822	9.001	20.254	34.557	37.910	30	47
LOGG	CARN	71	0308	TOTL	SF	RBT	0	64	35.906	4.050	0.506	8.100	16.404	34.899	36.914	30	47
LOGG	CARN	71	0308	TOTL	SF	RBT	1	46	76.326	6.617	0.976	13.233	43.780	74.365	78.287	60	88
LOGG	CARN	71	0308	TOTL	SF	RBT	2	26	99.885	7.581	1.487	15.161	57.466	96.822	102.947	91	118
LOGG	CARN	71	0308	TOTL	SF	RBT	3	19	139.053	13.554	3.110	27.109	183.719	132.523	145.583	121	172
LOGG	CARN	71	2408	TOTL	PS	RBT	0	61	37.820	3.631	0.465	7.262	13.184	36.890	38.749	30	47
LOGG	CARN	71	1509	0500	SF	RBT	0	68	40.382	4.700	0.570	9.400	22.090	39.248	41.517	31	53
LOGG	CARN	71	1509	2000	SF	RBT	0	71	40.606	4.695	0.557	9.390	22.042	39.497	41.714	33	53
LOGG	CARN	71	1509	TOTL	SF	RBT	0	139	40.496	4.682	0.397	9.363	21.918	39.710	41.283	31	53
LOGG	CARN	71	1509	TOTL	SF	RBT	1	43	79.837	6.502	0.992	13.005	42.282	77.844	81.830	64	92
LOGG	CARN	71	1509	TOTL	SF	RBT	2	16	107.250	7.066	1.767	14.133	49.933	103.487	111.013	94	120
LOGG	CARN	71	1509	TOTL	SF	RBT	3	14	141.571	15.421	4.121	30.842	237.802	132.669	150.474	126	177
LOGG	CARN	71	0610	TOTL	PS	RBT	0	49	41.388	4.353	0.622	8.706	18.951	40.138	42.638	34	52
LOGG	CARN	71	0208	2	PS	ALUT	-	411	55.655	12.078	0.596	24.157	145.885	54.475	56.834	37	108
LOGG	CARN	71	1609	2	S	ALUT	-	344	56.965	11.313	0.610	22.627	127.993	55.757	58.173	41	100
LOGG	CARN	71	1609	3	S	ALUT	-	53	79.642	15.498	2.129	30.997	240.196	75.384	83.899	51	106
LOGG	CARN	71	0609	4	S	ALUT	-	52	82.212	13.756	1.908	27.512	189.229	78.396	86.027	56	117
LOGG	CARN	71	1609	6	S	ALUT	-	40	88.075	13.371	2.114	26.742	178.789	83.804	92.346	71	117
LOGG	CARN	71	1609	8	S	ALUT	-	73	80.466	11.349	1.328	22.699	128.808	77.822	83.109	60	104
LOGG	CARN	71	0208	2	PS	ASPR	-	39	79.769	15.593	2.497	31.185	243.130	74.726	84.813	50	115
LOGG	CARN	71	1609	2	S	ASPR	-	58	78.638	18.464	2.424	36.927	340.902	73.789	83.487	56	135
LOGG	CARN	71	1309	FRED	SF	COHO	0	221	53.439	8.485	0.571	16.970	71.993	52.309	54.569	39	80
LOGG	CARN	71	1409	FRED	S	ASPR	-	249	73.799	18.592	1.178	37.185	345.677	71.466	76.132	33	145
LOGG	CARN	71	1309	PACH	SF	COHO	0	173	54.064	9.480	0.721	18.960	89.874	52.636	55.491	41	87
LOGG	CARN	71	1309	PACH	SF	COHO	1	10	96.800	6.697	2.118	13.393	44.844	92.014	101.586	88	108
LOGG	CARN	71	1309	PACH	SF	RBT	0	88	48.795	5.135	0.547	10.271	26.371	47.706	49.885	39	63
LOGG	CARN	71	1309	PACH	SF	RBT	1	15	94.067	7.824	2.020	15.647	61.210	89.744	98.390	80	109
LOGG	CARN	71	1309	PACH	SF	RBT	3	3	132.333	10.408	6.009	20.817	108.333	106.494	158.173	124	144
LOGG	CARN	71	1409	PACH	S	ASPR	-	126	94.095	18.781	1.673	37.563	352.743	90.782	97.408	62	160
LOGG	CARN	71	1309	NPAC	SF	COHO	0	106	55.349	9.668	0.939	19.336	93.467	53.490	57.208	40	84
LOGG	CARN	71	1309	NPAC	SF	RBT	0	44	52.886	7.875	1.187	15.749	62.010	50.500	55.273	38	73
LOGG	CARN	71	1309	NPAC	SF	RBT	1	7	105.857	3.132	1.184	6.264	9.810	102.957	108.757	101	110
LOGG	CARN	71	1409	NPAC	S	ASPR	-	47	115.766	22.018	3.212	44.036	484.792	109.311	122.221	78	188
LOGG	CARN	71	0909	RITH	SF	CT	0	145	56.469	6.640	0.551	13.279	44.084	55.377	57.561	38	74
LOGG	CARN	71	0909	RITH	SF	CT	1	44	90.750	5.104	0.769	10.208	26.052	89.203	92.297	78	100
LOGG	CARN	71	0909	RITH	SF	CT	2	14	106.071	4.009	1.071	8.018	16.071	103.757	108.386	101	114
LOGG	CARN	71	0909	RITH	SF	CT	3	11	131.091	14.272	4.303	28.544	203.691	121.495	140.687	117	163
LOGG	CARN	72	1304	FENC	TR	COHO	1	64	72.563	6.421	0.803	12.843	41.234	70.965	74.160	60	89
LOGG	CARN	72	1304	FENC	TR	COHO	2	17	94.647	7.237	1.755	14.473	52.368	90.926	98.368	82	108
LOGG	CARN	72	1904	FENC	TR	COHO	1	50	73.520	7.049	0.997	14.097	49.683	71.516	75.524	61	90

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	72	1904	FENC	TR	COHO	2	20	93.500	6.428	1.437	12.855	41.316	90.496	96.504	81	105
LOGG	CARN	72	2604	FENC	TR	COHO	1	177	75.390	6.862	0.516	13.725	47.091	74.369	76.411	61	93
LOGG	CARN	72	2604	FENC	TR	COHO	2	61	95.902	6.816	0.873	13.632	46.457	94.156	97.647	82	109
LOGG	CARN	72	0305	FENC	TR	COHO	1	241	76.207	7.500	0.483	15.000	56.248	75.251	77.164	60	93
LOGG	CARN	72	0305	FENC	TR	COHO	2	112	99.911	10.944	1.034	21.888	119.776	97.863	101.958	81	136
LOGG	CARN	72	1005	FENC	TR	COHO	1	51	75.843	9.061	1.269	18.121	82.095	73.293	78.393	60	92
LOGG	CARN	72	1005	FENC	TR	COHO	2	54	112.370	8.313	1.131	16.626	69.106	110.108	114.633	98	137
LOGG	CARN	72	1705	FENC	TR	COHO	1	57	88.193	13.374	1.771	26.749	178.873	84.650	91.736	60	113
LOGG	CARN	72	1705	FENC	TR	COHO	2	51	112.784	7.867	1.102	15.734	61.893	110.570	114.999	100	136
LOGG	CARN	72	2405	FENC	TR	COHO	1	89	93.955	8.668	0.919	17.336	75.134	92.127	95.783	68	114
LOGG	CARN	72	2405	FENC	TR	COHO	2	67	109.239	7.650	0.935	15.299	58.518	107.379	111.099	98	135
LOGG	CARN	72	3105	FENC	TR	COHO	1	79	93.025	8.089	0.910	16.178	65.435	91.214	94.836	65	108
LOGG	CARN	72	3105	FENC	TR	COHO	2	49	106.612	9.101	1.300	18.202	82.826	103.999	109.225	89	127
LOGG	CARN	72	0706	FENC	TR	COHO	1	48	94.854	6.421	0.927	12.843	41.234	92.991	96.717	80	108
LOGG	CARN	72	0706	FENC	TR	COHO	2	24	115.625	8.402	1.715	16.804	70.592	112.075	119.175	104	131
LOGG	CARN	72	1406	FENC	TR	COHO	1	87	92.908	7.885	0.845	15.771	62.177	91.226	94.590	71	108
LOGG	CARN	72	1406	FENC	TR	COHO	2	24	111.958	8.645	1.765	17.290	74.737	108.305	115.611	97	136
LOGG	CARN	72	2806	FENC	TR	COHO	1	56	98.429	10.339	1.382	20.679	106.904	95.665	101.192	65	117
LOGG	CARN	72	2806	FENC	TR	COHO	2	28	120.607	10.553	1.994	21.105	111.358	116.519	124.695	105	143
LOGG	CARN	72	2405	2	PS	COHO	0	67	38.403	1.784	0.218	3.569	3.184	37.969	38.837	36	43
LOGG	CARN	72	2405	2	PS	COHO	1	3	64.000	1.000	0.577	2.000	1.000	61.517	66.483	63	65
LOGG	CARN	72	2405	3	PS	COHO	1	15	60.533	7.511	1.939	15.021	56.410	56.383	64.683	49	75
LOGG	CARN	72	2405	4	PS	COHO	0	100	38.540	1.629	0.163	3.259	2.655	38.217	38.863	34	45
LOGG	CARN	72	2405	4	PS	COHO	1	25	60.440	6.090	1.218	12.180	37.090	57.931	62.949	51	73
LOGG	CARN	72	2505	6	PS	COHO	0	55	37.182	1.479	0.199	2.959	2.189	36.783	37.581	33	40
LOGG	CARN	72	2505	6	PS	COHO	1	8	59.000	10.309	3.645	20.619	106.286	50.398	67.602	46	77
LOGG	CARN	72	2505	8	PS	COHO	0	51	37.922	0.891	0.125	1.782	0.794	37.671	38.172	36	40
LOGG	CARN	72	2505	8	PS	COHO	1	25	57.240	5.562	1.112	11.125	30.940	54.948	59.532	47	68
LOGG	CARN	72	2405	TOTL	PS	COHO	1	76	59.395	6.729	0.772	13.458	45.282	57.859	60.931	46	77
LOGG	CARN	72	1906	2	PS	COHO	0	68	39.235	2.306	0.280	4.612	5.317	38.679	39.792	35	45
LOGG	CARN	72	1906	2	PS	COHO	1	16	74.125	12.706	3.177	25.413	161.450	67.359	80.891	53	101
LOGG	CARN	72	2006	3	PS	COHO	0	74	39.230	2.193	0.255	4.386	4.810	38.722	39.737	36	48
LOGG	CARN	72	2006	3	PS	COHO	1	15	70.333	8.516	2.199	17.032	72.524	65.628	75.039	56	95
LOGG	CARN	72	2006	4	PS	COHO	0	28	38.607	2.393	0.452	4.787	5.729	37.680	39.534	34	43
LOGG	CARN	72	2006	4	PS	COHO	1	42	68.024	9.222	1.423	18.444	85.048	65.164	70.884	55	102
LOGG	CARN	72	2006	6	PS	COHO	0	95	39.242	1.861	0.191	3.721	3.462	38.864	39.620	37	49
LOGG	CARN	72	2006	6	PS	COHO	1	40	67.325	8.751	1.384	17.502	76.584	64.530	70.120	53	82
LOGG	CARN	72	2006	8	PS	COHO	0	26	40.731	1.458	0.286	2.915	2.125	40.142	41.320	38	44
LOGG	CARN	72	2006	8	PS	COHO	1	26	66.000	5.906	1.158	11.812	34.880	63.614	68.386	55	76
LOGG	CARN	72	2006	TOTL	PS	COHO	1	138	68.428	9.180	0.781	18.360	84.276	66.880	69.975	53	102
LOGG	CARN	72	3107	2	S	COHO	0	79	43.228	5.191	0.584	10.382	26.947	42.066	44.390	35	60
LOGG	CARN	72	3107	2	S	COHO	1	18	72.944	9.289	2.190	18.579	86.291	68.325	77.564	58	86
LOGG	CARN	72	0108	3	S	COHO	0	63	45.222	6.290	0.792	12.580	39.563	43.645	46.799	36	66
LOGG	CARN	72	0108	3	S	COHO	1	23	75.130	9.314	1.942	18.628	86.755	71.110	79.151	57	91
LOGG	CARN	72	0108	4	S	COHO	0	60	42.767	4.774	0.616	9.548	22.792	41.534	43.999	37	59
LOGG	CARN	72	0108	4	S	COHO	1	20	72.900	8.553	1.912	17.105	73.147	68.903	76.897	61	90
LOGG	CARN	72	0208	6	S	COHO	1	20	72.650	9.626	2.152	19.252	92.661	68.151	77.149	61	94
LOGG	CARN	72	0208	8	S	COHO	1	25	73.360	8.490	1.698	16.979	72.073	69.862	76.858	60	90
LOGG	CARN	72	0108	TOTL	S	COHO	1	90	74.022	8.908	0.939	17.815	79.348	72.154	75.891	54	94
LOGG	CARN	72	1109	2	S	COHO	0	81	47.222	7.585	0.843	15.169	57.525	45.545	48.899	38	66
LOGG	CARN	72	1109	2	S	COHO	1	15	78.933	8.311	2.146	16.621	69.067	74.341	83.525	68	93

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	72	1209	3	S	COHO	0	95	46.905	7.489	0.768	14.978	56.087	45.384	48.427	39	68
LOGG	CARN	72	1209	3	S	COHO	1	25	77.960	6.065	1.213	12.131	36.790	75.461	80.459	69	91
LOGG	CARN	72	1209	4	S	COHO	0	72	45.236	6.626	0.781	13.252	43.901	43.682	46.790	37	63
LOGG	CARN	72	1209	4	S	COHO	1	17	77.235	7.111	1.725	14.222	50.566	73.579	80.892	65	93
LOGG	CARN	72	1209	6	S	COHO	0	66	44.848	6.573	0.809	13.146	43.207	43.238	46.459	39	64
LOGG	CARN	72	1209	6	S	COHO	1	10	72.800	8.039	2.542	16.078	64.622	67.055	78.545	67	94
LOGG	CARN	72	1309	8	S	COHO	0	70	45.086	5.415	0.647	10.831	29.326	43.798	46.374	38	63
LOGG	CARN	72	1309	8	S	COHO	1	25	76.200	6.384	1.277	12.767	40.750	73.570	78.830	67	92
LOGG	CARN	72	1209	TOTL	S	COHO	1	87	77.460	6.867	0.736	13.734	47.158	75.995	78.925	67	94
LOGG	CARN	72	2505	468	PS	RBT	1	24	54.625	6.309	1.288	12.619	39.810	51.959	57.291	46	73
LOGG	CARN	72	2006	3	PS	RBT	1	6	78.000	4.980	2.033	9.960	24.800	72.775	83.225	73	84
LOGG	CARN	72	2006	4	PS	RBT	1	4	64.750	7.136	3.568	14.271	50.917	53.404	76.096	55	72
LOGG	CARN	72	2006	4	PS	RBT	2	3	94.000	1.000	0.577	2.000	1.000	91.517	96.483	93	95
LOGG	CARN	72	2006	6	PS	RBT	1	20	62.050	4.199	0.939	8.397	17.629	60.088	64.012	54	68
LOGG	CARN	72	2206	8	PS	RBT	1	9	64.778	8.288	2.763	16.576	68.694	58.396	71.160	56	79
LOGG	CARN	72	2006	3468	PS	RBT	1	35	64.257	6.232	1.053	12.465	38.844	62.119	66.396	54	79
LOGG	CARN	72	3107	2	S	RBT	0	5	33.400	0.548	0.245	1.095	0.300	32.719	34.081	33	34
LOGG	CARN	72	3107	2	S	RBT	1	9	73.111	8.023	2.674	16.045	64.361	66.934	79.288	64	89
LOGG	CARN	72	3107	2	S	RBT	2	4	97.500	3.109	1.555	6.218	9.667	92.556	102.444	95	102
LOGG	CARN	72	3107	2	S	RBT	3	1	167.000								
LOGG	CARN	72	0108	3	S	RBT	0	32	33.031	1.425	0.252	2.850	2.031	32.520	33.543	31	37
LOGG	CARN	72	0108	3	S	RBT	1	6	81.333	8.733	3.565	17.466	76.267	72.171	90.496	66	89
LOGG	CARN	72	0108	3	S	RBT	2	3	116.667	20.207	11.667	40.415	408.333	66.500	166.833	95	135
LOGG	CARN	72	0108	3	S	RBT	3	1	151.000								
LOGG	CARN	72	0108	4	S	RBT	1	11	76.364	9.426	2.842	18.853	88.855	70.026	82.702	61	90
LOGG	CARN	72	0108	4	S	RBT	2	4	120.750	12.685	6.343	25.371	160.917	100.580	140.920	105	136
LOGG	CARN	72	0108	4	S	RBT	3	1	196.000								
LOGG	CARN	72	0208	6	S	RBT	1	14	69.286	4.795	1.281	9.589	22.989	66.518	72.054	60	75
LOGG	CARN	72	0208	6	S	RBT	2	4	109.500	20.664	10.332	41.328	427.000	76.644	142.356	95	140
LOGG	CARN	72	0208	8	S	RBT	1	21	74.381	7.736	1.688	15.472	59.848	70.853	77.909	63	90
LOGG	CARN	72	0208	8	S	RBT	2	1	113.000								
LOGG	CARN	72	0108	TOTL	S	RBT	0	37	33.081	1.341	0.220	2.682	1.799	32.636	33.526	31	37
LOGG	CARN	72	0108	TOTL	S	RBT	1	61	74.066	8.150	1.044	16.301	66.429	71.978	76.153	60	90
LOGG	CARN	72	0108	TOTL	S	RBT	2	16	110.875	15.974	3.994	31.949	255.183	102.369	119.381	95	140
LOGG	CARN	72	0108	TOTL	S	RBT	3	3	171.333	22.811	13.170	45.622	520.333	114.703	227.964	151	196
LOGG	CARN	72	1109	2	S	RBT	0	10	39.400	3.169	1.002	6.339	10.044	37.135	41.665	33	46
LOGG	CARN	72	1109	2	S	RBT	1	5	80.800	9.680	4.329	19.360	93.700	68.765	92.835	71	96
LOGG	CARN	72	1109	2	S	RBT	2	2	133.000	21.213	15.000	42.426	450.000	-57.650	323.650	118	148
LOGG	CARN	72	1109	2	S	RBT	3	1	165.000								
LOGG	CARN	72	1209	3	S	RBT	0	16	39.563	2.421	0.605	4.843	5.863	38.273	40.852	35	44
LOGG	CARN	72	1209	3	S	RBT	1	4	85.500	4.509	2.255	9.018	20.333	78.330	92.670	82	92
LOGG	CARN	72	1209	3	S	RBT	2	1	139.000								
LOGG	CARN	72	1209	4	S	RBT	0	5	49.600	8.562	3.829	17.123	73.300	38.956	60.244	38	60
LOGG	CARN	72	1209	4	S	RBT	1	4	90.250	14.245	7.122	28.490	202.917	67.601	112.899	78	110
LOGG	CARN	72	1209	4	S	RBT	2	1	139.000								
LOGG	CARN	72	1209	6	S	RBT	0	20	42.900	2.673	0.598	5.347	7.147	41.651	44.149	38	48
LOGG	CARN	72	1209	6	S	RBT	1	9	71.111	4.137	1.379	8.273	17.111	67.926	74.296	64	79
LOGG	CARN	72	1309	8	S	RBT	0	40	40.200	5.441	0.860	10.881	29.600	38.462	41.938	29	54
LOGG	CARN	72	1309	8	S	RBT	1	21	74.905	6.920	1.510	13.841	47.890	71.749	78.061	63	90
LOGG	CARN	72	1209	TOTL	S	RBT	0	91	41.110	5.041	0.528	10.082	25.410	40.058	42.161	29	60
LOGG	CARN	72	1209	TOTL	S	RBT	1	42	76.429	7.815	1.206	15.631	61.080	74.005	78.853	63	96

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	72	1209	TOTL	S	RBT	2	5	130.800	16.022	7.165	32.044	256.700	110.881	150.719	110	148
LOGG	CARN	72	1209	TOTL	S	RBT	3	1	165.000								
LOGG	CARN	72	2405	2	PS	ALUT	-	49	50.816	13.326	1.904	26.651	177.570	46.990	54.643	32	83
LOGG	CARN	72	2405	3	PS	ALUT	-	5	64.000	20.700	9.257	41.400	428.500	38.264	89.736	46	87
LOGG	CARN	72	2405	4	PS	ALUT	-	17	63.059	14.528	3.524	29.056	211.059	55.589	70.528	47	91
LOGG	CARN	72	2505	6	PS	ALUT	-	4	82.000	10.708	5.354	21.417	114.667	64.974	99.026	70	96
LOGG	CARN	72	2505	8	PS	ALUT	-	7	74.714	10.515	3.974	21.031	110.571	64.977	84.452	60	90
LOGG	CARN	72	1906	2	PS	ALUT	-	125	50.424	12.093	1.082	24.186	146.246	48.282	52.566	33	95
LOGG	CARN	72	2006	3	PS	ALUT	-	7	62.000	7.659	2.895	15.319	58.667	54.907	69.093	52	73
LOGG	CARN	72	2006	4	PS	ALUT	-	15	64.933	10.096	2.607	20.191	101.924	59.355	70.512	50	86
LOGG	CARN	72	2006	6	PS	ALUT	-	8	70.875	15.189	5.370	30.377	230.696	58.202	83.548	51	95
LOGG	CARN	72	2206	8	PS	ALUT	-	7	77.000	4.583	1.732	9.165	21.000	72.756	81.244	71	85
LOGG	CARN	72	3107	2	S	ALUT	-	48	56.813	12.340	1.781	24.681	152.283	53.232	60.393	39	88
LOGG	CARN	72	0108	3	S	ALUT	-	23	72.826	14.131	2.947	28.263	199.696	66.727	78.926	48	97
LOGG	CARN	72	0108	4	S	ALUT	-	29	78.724	12.302	2.285	24.605	151.350	74.041	83.407	47	98
LOGG	CARN	72	0208	6	S	ALUT	-	21	77.667	13.731	2.996	27.461	188.533	71.404	83.929	51	102
LOGG	CARN	72	0208	8	S	ALUT	-	64	80.156	12.531	1.566	25.062	157.023	77.039	83.273	57	113
LOGG	CARN	72	1109	2	S	ALUT	-	55	59.255	11.538	1.556	23.075	133.119	56.143	62.366	43	87
LOGG	CARN	72	1209	3	S	ALUT	-	14	71.143	12.949	3.461	25.898	167.670	63.668	78.618	52	90
LOGG	CARN	72	1209	4	S	ALUT	-	12	77.500	13.581	3.921	27.163	184.455	68.875	86.125	60	96
LOGG	CARN	72	1209	6	S	ALUT	-	13	81.077	15.424	4.278	30.849	237.910	71.751	90.403	59	107
LOGG	CARN	72	1309	8	S	ALUT	-	21	81.905	11.393	2.486	22.785	129.790	76.709	87.101	60	106
LOGG	CARN	72	1109	23	S	ASPR	-	9	89.889	13.923	4.641	27.847	193.861	79.168	100.610	78	116
LOGG	CARN	72	0408	UPER	S	CT	1	35	73.743	10.885	1.840	21.771	118.491	70.008	77.478	58	93
LOGG	CARN	72	0408	UPER	S	CT	2	35	111.886	9.492	1.604	18.985	90.104	108.629	115.143	95	135
LOGG	CARN	72	1409	UPER	S	CT	0	2	30.000	1.414	1.000	2.828	2.000	17.290	42.710	29	31
LOGG	CARN	72	1409	UPER	S	CT	1	33	81.848	13.191	2.296	26.382	174.008	77.187	86.510	62	101
LOGG	CARN	72	1409	UPER	S	CT	2	18	118.278	9.436	2.224	18.872	89.036	113.585	122.971	105	137
LOGG	CARN	72	0308	2100	S	CT	0	5	38.400	2.881	1.288	5.762	8.300	34.818	41.982	35	42
LOGG	CARN	72	0308	2100	S	CT	1	47	77.511	11.116	1.621	22.231	123.560	74.252	80.770	54	110
LOGG	CARN	72	0308	2100	S	CT	2	2	131.500	20.506	14.500	41.012	420.500	-52.795	315.795	117	146
LOGG	CARN	72	0308	1600	S	COHO	0	125	47.552	6.225	0.557	12.450	38.749	46.450	48.654	36	65
LOGG	CARN	72	0308	1600	S	COHO	1	31	76.645	6.696	1.203	13.392	44.837	74.192	79.099	67	91
LOGG	CARN	72	2408	1600	S	COHO	0	67	44.299	4.404	0.538	8.808	19.394	43.228	45.369	38	58
LOGG	CARN	72	2408	1600	S	COHO	1	8	87.250	19.667	6.953	39.334	386.786	70.840	103.660	66	117
LOGG	CARN	72	1309	1600	S	COHO	0	68	50.838	8.831	1.071	17.662	77.988	48.707	52.969	37	73
LOGG	CARN	72	1309	1600	S	COHO	1	18	80.000	7.021	1.655	14.042	49.294	76.508	83.492	69	95
LOGG	CARN	72	0510	1600	S	COHO	0	69	44.899	4.694	0.565	9.388	22.034	43.774	46.023	39	63
LOGG	CARN	72	0308	1600	S	CT	0	1	36.000								
LOGG	CARN	72	0308	1600	S	CT	1	2	97.000	4.243	3.000	8.485	18.000	58.870	135.130	94	100
LOGG	CARN	72	0308	1600	S	CT	2	4	126.000	17.814	8.907	35.628	317.333	97.676	154.324	106	142
LOGG	CARN	72	0308	1600	S	CT	3	3	170.000	13.892	8.021	27.785	193.000	135.511	204.489	154	179
LOGG	CARN	72	1309	1600	S	CT	1	1	95.000								
LOGG	CARN	72	1309	1600	S	CT	2	3	124.000	16.371	9.452	32.741	268.000	83.358	164.642	110	142
LOGG	CARN	72	1309	1600	S	CT	3	2	181.000	0.000	0.000	0.000	0.000	181.000	181.000	181	181
LOGG	CARN	72	2308	USEL	S	COHO	0	77	48.688	7.160	0.816	14.321	51.270	47.064	50.312	39	68
LOGG	CARN	72	2308	USEL	S	COHO	1	2	78.500	2.121	1.500	4.243	4.500	59.435	97.565	77	80
LOGG	CARN	72	2308	USEL	S	CT	0	3	28.333	3.215	1.856	6.429	10.333	20.353	36.314	26	32
LOGG	CARN	72	2308	USEL	S	CT	1	18	92.778	11.929	2.812	23.858	142.301	86.845	98.710	73	109
LOGG	CARN	72	2308	USEL	S	CT	2	3	126.667	15.822	9.135	31.644	250.333	87.387	165.946	113	144
LOGG	CARN	72	2308	USEL	S	ALUT	-	84	63.952	17.907	1.954	35.815	320.672	60.064	67.841	38	102

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	72	2208	FRED	S	COHO	0	151	53.616	9.420	0.767	18.841	88.745	52.098	55.134	39	76
LOGG	CARN	72	2208	FRED	S	COHO	1	10	81.800	6.374	2.015	12.747	40.622	77.245	86.355	72	94
LOGG	CARN	72	2208	FRED	S	RBT	0	9	42.333	3.674	1.225	7.348	13.500	39.504	45.162	37	48
LOGG	CARN	72	2208	FRED	S	RBT	1	3	96.667	8.145	4.702	16.289	66.333	76.447	116.886	91	106
LOGG	CARN	72	2208	FRED	S	ALUT	-	21	32.667	5.003	1.092	10.007	25.033	30.385	34.949	25	47
LOGG	CARN	72	2308	PACH	S	ASPR	-	104	76.202	22.769	2.233	45.537	518.415	71.781	80.623	46	145
LOGG	CARN	72	2308	PACH	S	COHO	0	130	51.869	7.460	0.654	14.920	55.649	50.574	53.165	38	73
LOGG	CARN	72	2308	PACH	S	COHO	1	19	90.421	12.584	2.887	25.169	158.368	84.358	96.484	77	120
LOGG	CARN	72	2308	PACH	S	RBT	0	28	44.429	5.153	0.974	10.305	26.550	42.432	46.425	35	58
LOGG	CARN	72	2308	PACH	S	RBT	1	25	82.560	8.063	1.613	16.125	65.007	79.238	85.882	71	98
LOGG	CARN	72	2308	PACH	S	RBT	2	7	134.714	20.056	7.580	40.112	402.238	116.142	153.286	112	167
LOGG	CARN	72	2308	PACH	S	ASPR	-	47	87.362	22.414	3.269	44.827	502.366	80.790	93.933	61	140
LOGG	CARN	72	0408	RITH	S	CT	0	60	48.483	5.999	0.774	11.997	35.983	46.935	50.032	38	62
LOGG	CARN	72	0408	RITH	S	CT	1	108	84.537	7.064	0.680	14.127	49.896	83.191	85.883	65	99
LOGG	CARN	72	0408	RITH	S	CT	2	17	117.588	11.158	2.706	22.317	124.507	111.851	123.326	100	137
LOGG	CARN	72	0408	RITH	S	CT	3	3	166.000	7.810	4.509	15.620	61.000	146.610	185.390	161	175
LOGG	CARN	73	1003	FENC	TR	COHO	1	4	67.000	3.651	1.826	7.303	13.333	61.194	72.806	63	71
LOGG	CARN	73	1003	FENC	TR	COHO	2	2	75.000	0.000	0.000	0.000	0.000	75.000	75.000	75	75
LOGG	CARN	73	2503	FENC	TR	COHO	1	3	63.667	4.041	2.333	8.083	16.333	53.633	73.700	60	68
LOGG	CARN	73	2503	FENC	TR	COHO	2	3	95.667	21.779	12.574	43.558	474.333	41.597	149.736	78	120
LOGG	CARN	73	0404	FENC	TR	COHO	1	29	67.621	4.555	0.846	9.109	20.744	65.887	69.354	62	77
LOGG	CARN	73	0404	FENC	TR	COHO	2	19	86.632	14.182	3.254	28.364	201.135	79.799	93.464	72	132
LOGG	CARN	73	1104	FENC	TR	COHO	1	9	69.111	5.988	1.996	11.977	35.861	64.500	73.722	60	76
LOGG	CARN	73	1104	FENC	TR	COHO	2	1	84.000								
LOGG	CARN	73	1804	FENC	TR	COHO	1	80	69.287	5.332	0.596	10.665	28.435	68.101	70.474	60	79
LOGG	CARN	73	1804	FENC	TR	COHO	2	82	89.110	10.367	1.145	20.735	107.482	86.831	91.388	75	125
LOGG	CARN	73	2504	FENC	TR	COHO	1	69	70.478	5.679	0.684	11.358	32.253	69.118	71.839	60	80
LOGG	CARN	73	2504	FENC	TR	COHO	2	86	94.058	11.959	1.290	23.918	143.020	91.492	96.624	75	126
LOGG	CARN	73	0205	FENC	TR	COHO	1	38	74.895	6.425	1.042	12.851	41.286	72.789	77.000	60	85
LOGG	CARN	73	0205	FENC	TR	COHO	2	38	98.474	8.203	1.331	16.405	67.283	95.786	101.162	85	113
LOGG	CARN	73	0905	FENC	TR	COHO	1	228	80.675	8.225	0.545	16.450	67.647	79.597	81.754	60	97
LOGG	CARN	73	0905	FENC	TR	COHO	2	166	100.283	7.831	0.608	15.661	61.319	99.080	101.487	87	125
LOGG	CARN	73	1605	FENC	TR	COHO	1	111	83.189	7.472	0.709	14.944	55.828	81.785	84.593	62	97
LOGG	CARN	73	1605	FENC	TR	COHO	2	156	100.744	7.471	0.598	14.942	55.818	99.559	101.928	87	134
LOGG	CARN	73	2305	FENC	TR	COHO	1	143	81.993	8.240	0.689	16.480	67.894	80.629	83.357	60	97
LOGG	CARN	73	2305	FENC	TR	COHO	2	100	99.940	7.693	0.769	15.387	59.188	98.417	101.463	86	127
LOGG	CARN	73	3005	FENC	TR	COHO	1	22	80.864	9.311	1.985	18.622	86.695	76.735	84.993	60	90
LOGG	CARN	73	3005	FENC	TR	COHO	2	8	90.750	3.012	1.065	6.024	9.071	88.237	93.263	87	94
LOGG	CARN	73	0606	FENC	TR	COHO	1	45	73.556	9.194	1.371	18.388	84.525	70.801	76.310	60	88
LOGG	CARN	73	0606	FENC	TR	COHO	2	8	92.875	4.454	1.575	8.908	19.839	89.159	96.591	87	98
LOGG	CARN	73	1306	FENC	TR	COHO	1	24	70.583	7.734	1.579	15.469	59.819	67.315	73.851	60	88
LOGG	CARN	73	1705	2	PS	COHO	0	67	39.507	2.156	0.263	4.312	4.648	38.983	40.032	34	46
LOGG	CARN	73	1705	2	PS	COHO	1	28	61.750	7.255	1.371	14.511	52.639	58.939	64.561	51	78
LOGG	CARN	73	1705	3	PS	COHO	0	102	38.333	1.962	0.194	3.923	3.848	37.949	38.718	34	46
LOGG	CARN	73	1705	3	PS	COHO	1	12	57.583	3.919	1.131	7.837	15.356	55.095	60.072	50	64
LOGG	CARN	73	1705	4	PS	COHO	0	59	39.729	1.779	0.232	3.559	3.167	39.265	40.192	35	43
LOGG	CARN	73	1705	4	PS	COHO	1	41	58.854	6.998	1.093	13.997	48.978	56.646	61.061	50	80
LOGG	CARN	73	1705	6	PS	COHO	0	62	40.565	1.878	0.239	3.757	3.529	40.090	41.039	38	47
LOGG	CARN	73	1705	6	PS	COHO	1	15	59.733	6.100	1.575	12.200	37.210	56.363	63.104	50	74
LOGG	CARN	73	1705	8	PS	COHO	0	66	41.182	1.889	0.232	3.777	3.566	40.719	41.644	37	47

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S**S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	73	1705	8	PS	COHO	1	5	59.400	5.857	2.619	11.713	34.300	52.119	66.681	51	65
LOGG	CARN	73	1705	TOTL	PS	COHO	0	356	39.702	2.195	0.116	4.390	4.818	39.472	39.933	34	47
LOGG	CARN	73	1705	TOTL	PS	COHO	1	101	59.663	6.640	0.661	13.279	44.086	58.355	60.972	50	80
LOGG	CARN	73	2506	2	S	COHO	0	117	42.009	2.821	0.261	5.642	7.957	41.492	42.525	35	50
LOGG	CARN	73	2506	2	S	COHO	1	20	69.650	8.324	1.861	16.648	69.292	65.760	73.540	54	84
LOGG	CARN	73	2806	3	S	COHO	0	56	43.750	3.523	0.471	7.045	12.409	42.809	44.691	37	52
LOGG	CARN	73	2806	3	S	COHO	1	43	64.791	6.174	0.942	12.349	38.122	62.898	66.683	55	80
LOGG	CARN	73	2706	4	S	COHO	0	81	43.037	3.679	0.409	7.358	13.536	42.224	43.851	34	51
LOGG	CARN	73	2706	4	S	COHO	1	45	67.289	7.041	1.050	14.082	49.574	65.179	69.399	55	82
LOGG	CARN	73	2606	8	S	COHO	0	106	42.915	3.287	0.319	6.573	10.802	42.283	43.547	36	54
LOGG	CARN	73	2606	8	S	COHO	1	11	63.818	6.824	2.057	13.648	46.564	59.230	68.406	55	79
LOGG	CARN	73	2606	6	S	COHO	0	60	45.150	3.145	0.406	6.290	9.892	44.338	45.962	40	53
LOGG	CARN	73	2606	6	S	COHO	1	20	63.400	3.152	0.705	6.305	9.937	61.927	64.873	58	69
LOGG	CARN	73	2606	TOTL	S	COHO	0	421	43.143	3.431	0.167	6.862	11.770	42.811	43.474	34	54
LOGG	CARN	73	2606	TOTL	S	COHO	1	138	66.109	6.727	0.573	13.454	45.251	64.975	67.243	55	84
LOGG	CARN	73	0708	2	S	COHO	0	133	45.910	3.963	0.344	7.926	15.704	45.229	46.590	34	57
LOGG	CARN	73	0708	2	S	COHO	1	19	70.947	6.778	1.555	13.556	45.942	67.682	74.213	60	84
LOGG	CARN	73	0808	3	S	COHO	0	144	47.722	4.253	0.354	8.506	18.090	47.020	48.424	38	56
LOGG	CARN	73	0808	3	S	COHO	1	26	70.692	8.128	1.594	16.256	66.062	67.409	73.976	59	88
LOGG	CARN	73	0908	4	S	COHO	0	207	46.812	4.133	0.287	8.267	17.086	46.243	47.380	39	57
LOGG	CARN	73	0908	4	S	COHO	1	36	69.083	8.279	1.380	16.557	68.536	66.282	71.884	58	86
LOGG	CARN	73	0908	6	S	COHO	0	185	48.757	3.887	0.286	7.774	15.109	48.191	49.323	40	57
LOGG	CARN	73	0908	6	S	COHO	1	23	66.957	6.241	1.301	12.482	38.953	64.263	69.650	58	79
LOGG	CARN	73	0908	8	S	COHO	0	96	47.302	4.953	0.505	9.905	24.529	46.301	48.303	36	57
LOGG	CARN	73	0908	8	S	COHO	1	16	65.563	7.275	1.819	14.550	52.929	61.688	69.437	59	82
LOGG	CARN	73	0808	TOTL	S	COHO	0	763	47.362	4.288	0.155	8.575	18.383	47.054	47.669	34	57
LOGG	CARN	73	0808	TOTL	S	COHO	1	120	68.850	7.646	0.698	15.292	58.465	67.468	70.232	58	88
LOGG	CARN	73	1009	2	S	COHO	0	138	49.717	5.903	0.503	11.806	34.847	48.722	50.712	38	65
LOGG	CARN	73	1009	2	S	COHO	1	30	76.167	6.309	1.152	12.617	39.799	73.817	78.516	66	89
LOGG	CARN	73	1309	3	S	COHO	0	69	52.942	5.052	0.608	10.105	25.526	51.732	54.152	42	65
LOGG	CARN	73	1309	3	S	COHO	1	22	78.727	6.916	1.474	13.831	47.827	75.660	81.794	68	89
LOGG	CARN	73	1209	4	S	COHO	0	148	49.899	5.798	0.477	11.596	33.616	48.955	50.842	38	65
LOGG	CARN	73	1209	4	S	COHO	1	26	74.923	5.734	1.124	11.467	32.874	72.607	77.238	66	88
LOGG	CARN	73	1109	6	S	COHO	0	130	51.215	4.854	0.426	9.709	23.566	50.372	52.058	42	64
LOGG	CARN	73	1109	6	S	COHO	1	19	72.053	4.684	1.075	9.368	21.942	69.796	74.309	66	85
LOGG	CARN	73	1109	8	S	COHO	0	117	50.974	6.072	0.561	12.144	36.870	49.863	52.086	39	65
LOGG	CARN	73	1109	8	S	COHO	1	6	75.000	6.986	2.852	13.971	48.800	67.671	82.328	68	88
LOGG	CARN	73	1109	5	S	COHO	0	61	49.164	6.432	0.824	12.864	41.373	47.517	50.811	40	65
LOGG	CARN	73	1109	5	S	COHO	1	8	77.875	6.468	2.287	12.937	41.839	72.478	83.272	67	87
LOGG	CARN	73	1109	TOTL	S	COHO	0	663	50.558	5.765	0.224	11.529	33.232	50.115	51.001	38	65
LOGG	CARN	73	1109	TOTL	S	COHO	1	108	75.731	6.429	0.619	12.859	41.338	74.506	76.956	66	89
LOGG	CARN	73	1705	TOTL	PS	RBT	1	14	60.143	3.759	1.005	7.518	14.132	57.973	62.313	51	65
LOGG	CARN	73	2506	2	S	RBT	2	3	84.667	3.512	2.028	7.024	12.333	75.948	93.385	81	88
LOGG	CARN	73	2506	2	S	RBT	0	3	32.000	1.732	1.000	3.464	3.000	27.700	36.300	31	34
LOGG	CARN	73	2506	2	S	RBT	1	3	72.000	11.790	6.807	23.580	139.000	42.731	101.269	62	85
LOGG	CARN	73	2506	2	S	RBT	2	1	124.000								
LOGG	CARN	73	2806	3	S	RBT	0	5	32.400	1.140	0.510	2.280	1.300	30.982	33.818	31	34
LOGG	CARN	73	2806	3	S	RBT	1	4	78.750	8.261	4.131	16.523	68.250	65.614	91.886	67	85
LOGG	CARN	73	2706	4	S	RBT	0	11	33.000	0.775	0.234	1.549	0.600	32.479	33.521	32	34
LOGG	CARN	73	2706	4	S	RBT	1	2	76.500	21.920	15.500	43.841	480.500	-120.505	273.505	61	92
LOGG	CARN	73	2606	6	S	RBT	0	40	32.150	0.921	0.146	1.843	0.849	31.856	32.444	30	34

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	73	2606	6	S	RBT	1	8	73.750	8.345	2.950	16.690	69.643	66.787	80.713	68	92
LOGG	CARN	73	2606	8	S	RBT	0	7	31.143	2.340	0.884	4.680	5.476	28.976	33.310	26	33
LOGG	CARN	73	2606	8	S	RBT	1	14	69.857	9.742	2.604	19.483	94.901	64.233	75.481	58	91
LOGG	CARN	73	2506	TOTL	S	RBT	0	51	32.216	1.301	0.182	2.602	1.693	31.850	32.582	26	34
LOGG	CARN	73	2506	TOTL	S	RBT	1	31	72.645	9.972	1.791	19.944	99.437	68.992	76.299	58	92
LOGG	CARN	73	0708	2	S	RBT	0	21	38.333	5.544	1.210	11.088	30.733	35.805	40.862	29	48
LOGG	CARN	73	0708	2	S	RBT	1	8	81.250	13.003	4.597	26.005	169.071	70.401	92.099	66	101
LOGG	CARN	73	0708	2	S	RBT	2	3	118.667	21.127	12.197	42.253	446.333	66.218	171.116	105	143
LOGG	CARN	73	0808	3	S	RBT	0	18	40.778	11.660	2.748	23.319	135.948	34.979	46.576	20	54
LOGG	CARN	73	0808	3	S	RBT	1	7	83.571	17.106	6.466	34.212	292.619	67.731	99.412	58	103
LOGG	CARN	73	0808	3	S	RBT	2	3	134.667	30.534	17.629	61.068	932.333	58.862	210.471	105	166
LOGG	CARN	73	0908	4	S	RBT	0	58	42.862	6.080	0.798	12.159	36.963	41.265	44.459	29	70
LOGG	CARN	73	0908	4	S	RBT	1	2	105.000	1.414	1.000	2.828	2.000	92.290	117.710	104	106
LOGG	CARN	73	0908	6	S	RBT	0	193	39.544	4.505	0.324	9.009	20.291	38.902	40.186	30	52
LOGG	CARN	73	0908	6	S	RBT	1	6	74.000	4.472	1.826	8.944	20.000	69.308	78.692	67	80
LOGG	CARN	73	0908	8	S	RBT	0	64	36.016	3.249	0.406	6.498	10.555	35.207	36.824	31	43
LOGG	CARN	73	0908	8	S	RBT	1	11	75.455	7.581	2.286	15.162	57.473	70.357	80.552	60	85
LOGG	CARN	73	0808	TOTL	S	RBT	0	353	39.431	5.152	0.274	10.304	26.541	38.888	39.974	29	54
LOGG	CARN	73	0808	TOTL	S	RBT	1	34	78.912	12.054	2.067	24.108	145.295	74.715	83.108	58	104
LOGG	CARN	73	0808	TOTL	S	RBT	2	7	125.143	23.162	8.754	46.324	536.476	103.695	146.591	105	166
LOGG	CARN	73	1009	2	S	RBT	0	10	49.700	4.029	1.274	8.058	16.233	46.821	52.579	41	55
LOGG	CARN	73	1009	2	S	RBT	1	4	85.750	3.862	1.931	7.724	14.917	79.609	91.891	82	91
LOGG	CARN	73	1009	2	S	RBT	2	6	109.167	5.269	2.151	10.539	27.767	103.638	114.695	105	118
LOGG	CARN	73	1309	3	S	RBT	0	14	59.357	3.478	0.929	6.955	12.093	57.350	61.365	53	65
LOGG	CARN	73	1309	3	S	RBT	1	5	93.600	5.595	2.502	11.189	31.300	86.644	100.556	85	100
LOGG	CARN	73	1309	3	S	RBT	2	3	126.333	15.011	8.667	30.022	225.333	89.067	163.600	109	135
LOGG	CARN	73	1209	4	S	RBT	3	2	168.000	0.000	0.000	0.000	0.000	168.000	168.000	168	168
LOGG	CARN	73	1209	4	S	RBT	0	44	49.227	3.634	0.548	7.267	13.203	48.126	50.328	42	57
LOGG	CARN	73	1109	5	S	RBT	1	1	72.000								
LOGG	CARN	73	1109	6	S	RBT	0	53	45.811	4.740	0.651	9.479	22.464	44.509	47.113	37	57
LOGG	CARN	73	1109	6	S	RBT	0	68	44.647	5.183	0.628	10.365	26.859	43.396	45.898	36	68
LOGG	CARN	73	1109	6	S	RBT	1	2	83.500	3.536	2.500	7.071	12.500	51.725	115.275	81	86
LOGG	CARN	73	1109	8	S	RBT	2	1	120.000								
LOGG	CARN	73	1109	8	S	RBT	0	188	42.112	4.165	0.304	8.331	17.351	41.510	42.713	34	54
LOGG	CARN	73	1109	8	S	RBT	1	3	79.667	10.263	5.925	20.526	105.333	54.187	105.146	71	91
LOGG	CARN	73	1209	TOTL	S	RBT	2	1	100.000								
LOGG	CARN	73	1209	TOTL	S	RBT	0	376	44.699	5.663	0.292	11.326	32.067	44.121	45.278	34	65
LOGG	CARN	73	1209	TOTL	S	RBT	1	15	83.800	8.728	2.253	17.455	76.171	78.978	88.622	68	96
LOGG	CARN	73	1209	TOTL	S	RBT	2	11	111.727	10.565	3.185	21.130	111.618	104.624	118.831	100	135
LOGG	CARN	73	1705	2	S	RBT	3	1	168.000								
LOGG	CARN	73	1705	3468	PS	ALUT	-	114	51.921	11.149	1.044	22.298	124.303	49.854	53.989	37	103
LOGG	CARN	73	2506	2	PS	ALUT	-	20	67.450	11.208	2.506	22.417	125.629	62.212	72.688	48	87
LOGG	CARN	73	2806	3	S	ALUT	-	185	57.038	11.676	0.858	23.352	136.330	55.338	58.738	38	94
LOGG	CARN	73	2706	4	S	ALUT	-	56	80.946	16.495	2.204	32.990	272.088	76.538	85.355	49	119
LOGG	CARN	73	2606	6	S	ALUT	-	20	80.900	10.968	2.453	21.937	120.305	75.774	86.026	55	99
LOGG	CARN	73	2606	8	S	ALUT	-	37	81.459	14.181	2.331	28.361	201.089	76.750	86.169	57	105
LOGG	CARN	73	0708	2	S	ALUT	-	68	75.735	11.740	1.424	23.481	137.839	72.902	78.569	55	102
LOGG	CARN	73	0808	3	S	ALUT	-	219	58.374	11.102	0.750	22.205	123.263	56.889	59.860	40	89
LOGG	CARN	73	0908	4	S	ALUT	-	28	86.357	23.389	4.420	46.778	547.053	77.296	95.418	50	148
LOGG	CARN	73	0908	6	S	ALUT	-	11	79.545	18.403	5.549	36.806	338.673	67.172	91.919	55	110
					S	ALUT	-	24	82.583	14.123	2.883	28.247	199.471	76.616	88.551	60	113

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	73	0909	8	S	ALUT	-	23	79.478	10.470	2.183	20.940	109.625	74.959	83.997	61	97
LOGG	CARN	73	1009	2	S	ALUT	-	183	61.678	11.214	0.829	22.427	125.747	60.036	63.319	41	110
LOGG	CARN	73	1309	3	S	ALUT	-	21	79.190	13.869	3.027	27.739	192.362	72.865	85.516	53	101
LOGG	CARN	73	1209	4	S	ALUT	-	17	83.824	12.064	2.926	24.127	145.529	77.621	90.026	66	103
LOGG	CARN	73	1109	5	S	ALUT	-	24	83.125	9.488	1.937	18.977	90.027	79.116	87.134	62	98
LOGG	CARN	73	1109	6	S	ALUT	-	15	82.933	12.697	3.278	25.394	161.210	75.918	89.949	60	103
LOGG	CARN	73	1109	8	S	ALUT	-	19	83.895	5.646	1.295	11.292	31.877	81.175	86.615	75	93
LOGG	CARN	73	2506	2	S	ASPR	-	13	76.615	21.026	5.832	42.052	442.090	63.903	89.328	52	120
LOGG	CARN	73	0708	2	S	ASPR	-	16	81.750	16.815	4.204	33.629	282.733	72.796	90.704	55	104
LOGG	CARN	73	1009	2	S	ASPR	-	9	87.778	17.268	5.756	34.537	298.194	74.481	101.074	65	124
LOGG	CARN	73	1309	3	S	ASPR	-	8	103.875	18.841	6.661	37.682	354.982	88.154	119.596	90	147
LOGG	CARN	73	2806	UPER	S	CT	1	3	65.667	8.145	4.702	16.289	66.333	45.447	85.886	60	75
LOGG	CARN	73	2806	UPER	S	CT	2	31	104.968	12.106	2.174	24.213	146.566	100.532	109.403	88	124
LOGG	CARN	73	2806	UPER	S	CT	3	8	144.500	14.550	5.144	29.101	211.714	132.359	156.641	131	167
LOGG	CARN	73	3108	UPER	S	CT	0	37	31.784	4.436	0.729	8.871	19.674	30.311	33.257	23	40
LOGG	CARN	73	3108	UPER	S	CT	1	15	91.133	7.549	1.949	15.097	56.981	86.962	95.304	74	99
LOGG	CARN	73	3108	UPER	S	CT	2	20	114.550	9.355	2.092	18.711	87.524	110.178	118.922	100	127
LOGG	CARN	73	3108	UPER	S	CT	3	7	143.429	12.122	4.582	24.245	146.952	132.203	154.654	133	168
LOGG	CARN	73	2606	2100	S	CT	0	12	23.917	0.289	0.083	0.577	0.083	23.733	24.100	23	24
LOGG	CARN	73	2606	2100	S	CT	1	5	73.200	6.017	2.691	12.033	36.200	65.720	80.680	65	79
LOGG	CARN	73	2606	2100	S	CT	2	11	94.545	8.359	2.520	16.718	69.873	88.925	100.166	86	114
LOGG	CARN	73	2606	2100	S	CT	3	1	158.000								
LOGG	CARN	73	1109	2100	S	CT	0	20	43.000	3.449	0.771	6.898	11.895	41.388	44.612	35	48
LOGG	CARN	73	1109	2100	S	CT	1	17	83.294	6.835	1.658	13.670	46.721	79.780	86.809	74	95
LOGG	CARN	73	1109	2100	S	CT	2	14	108.857	10.798	2.886	21.596	116.593	102.624	115.091	98	133
LOGG	CARN	73	1109	2100	S	CT	3	1	159.000								
LOGG	CARN	73	1109	1600	S	COHO	0	64	47.594	6.076	0.759	12.151	36.912	46.082	49.105	37	63
LOGG	CARN	73	1109	1600	S	COHO	1	35	75.857	6.381	1.079	12.762	40.714	73.668	78.047	65	88
LOGG	CARN	73	1109	1600	S	CT	1	1	120.000								
LOGG	CARN	73	1109	1600	S	CT	2	4	153.500	10.970	5.485	21.939	120.333	136.058	170.942	138	163
LOGG	CARN	73	1109	1600	S	CT	3	2	191.500	2.121	1.500	4.243	4.500	172.435	210.565	190	193
LOGG	CARN	73	3008	USEL	S	COHO	0	4	66.250	1.500	0.750	3.000	2.250	63.865	68.635	64	67
LOGG	CARN	73	3008	USEL	S	COHO	1	3	79.667	3.786	2.186	7.572	14.333	70.268	89.066	77	84
LOGG	CARN	73	3008	USEL	S	CT	0	26	49.269	3.412	0.669	6.825	11.645	47.891	50.648	41	53
LOGG	CARN	73	3008	USEL	S	CT	1	12	99.500	12.079	3.487	24.159	145.909	91.829	107.171	83	122
LOGG	CARN	73	3008	USEL	S	CT	2	3	163.333	18.339	10.588	36.679	336.333	117.804	208.863	149	184
LOGG	CARN	73	3108	FRED	S	ALUT	-	40	75.250	14.415	2.279	28.829	207.782	70.646	79.854	45	103
LOGG	CARN	73	3108	FRED	S	COHO	0	26	55.577	7.117	1.396	14.234	50.654	52.702	58.452	43	67
LOGG	CARN	73	3108	FRED	S	COHO	1	9	74.556	4.475	1.492	8.950	20.028	71.110	78.001	69	84
LOGG	CARN	73	3108	FRED	S	RBT	0	2	49.500	2.121	1.500	4.243	4.500	30.435	68.565	48	51
LOGG	CARN	73	3108	FRED	S	RBT	1	1	119.000								
LOGG	CARN	73	3108	FRED	S	ALUT	-	34	33.853	6.378	1.094	12.755	40.675	31.633	36.073	27	51
LOGG	CARN	73	2908	PACH	S	ASPR	-	48	71.333	17.169	2.478	34.338	294.780	66.352	76.314	54	123
LOGG	CARN	73	2908	PACH	S	COHO	0	78	50.577	6.381	0.722	12.762	40.715	49.139	52.015	41	65
LOGG	CARN	73	2908	PACH	S	COHO	1	17	79.882	8.200	1.989	16.399	67.235	75.666	84.098	68	94
LOGG	CARN	73	2908	PACH	S	RBT	0	63	47.921	4.949	0.624	9.898	24.494	46.680	49.161	39	60
LOGG	CARN	73	2908	PACH	S	RBT	1	4	103.500	20.889	10.444	41.777	436.333	70.287	136.713	77	128
LOGG	CARN	73	2908	PACH	S	ALUT	-	33	64.515	10.978	1.911	21.955	120.508	60.636	68.394	50	87
LOGG	CARN	73	3008	RITH	S	ASPR	-	44	83.182	14.729	2.220	29.458	216.943	78.719	87.645	63	126
LOGG	CARN	73	3008	RITH	S	CT	0	154	56.981	5.308	0.428	10.616	28.176	56.134	57.827	43	73
LOGG	CARN	73	3008	RITH	S	CT	1	33	101.788	14.095	2.454	28.190	198.672	96.807	106.769	82	137
LOGG	CARN	73	3008	RITH	S	CT	2	2	153.500	0.707	0.500	1.414	0.500	147.145	159.855	153	154

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	74	2003	FENC	TR	COHO	1	14	63.786	2.392	0.639	4.783	5.720	62.405	65.166	60	67
LOGG	CARN	74	2003	FENC	TR	COHO	2	24	76.125	7.854	1.603	15.707	61.679	72.807	79.443	69	98
LOGG	CARN	74	2903	FENC	TR	COHO	1	15	64.933	3.127	0.808	6.255	9.781	63.205	66.661	60	70
LOGG	CARN	74	2903	FENC	TR	COHO	2	3	79.667	8.021	4.631	16.042	64.333	59.754	99.579	72	88
LOGG	CARN	74	0304	FENC	TR	COHO	1	18	65.833	4.176	0.984	8.353	17.441	63.756	67.910	60	73
LOGG	CARN	74	0304	FENC	TR	COHO	2	6	82.500	8.456	3.452	16.912	71.500	73.628	91.372	74	95
LOGG	CARN	74	0904	FENC	TR	COHO	1	44	67.455	4.995	0.753	9.990	24.951	65.941	68.968	60	80
LOGG	CARN	74	0904	FENC	TR	COHO	2	9	81.667	4.975	1.658	9.950	24.750	77.836	85.497	75	90
LOGG	CARN	74	1704	FENC	TR	COHO	1	81	68.358	6.024	0.669	12.047	36.283	67.026	69.690	60	81
LOGG	CARN	74	1704	FENC	TR	COHO	2	19	85.000	9.068	2.080	18.135	82.222	80.631	89.369	71	106
LOGG	CARN	74	2404	FENC	TR	COHO	1	89	70.191	6.294	0.667	12.587	39.611	68.863	71.519	60	83
LOGG	CARN	74	2404	FENC	TR	COHO	2	126	100.897	13.589	1.211	27.177	184.653	98.500	103.294	71	136
LOGG	CARN	74	0105	FENC	TR	COHO	1	32	73.563	8.531	1.508	17.061	72.770	70.501	76.624	61	89
LOGG	CARN	74	0105	FENC	TR	COHO	2	93	104.140	11.369	1.179	22.738	129.252	101.806	106.474	82	131
LOGG	CARN	74	0805	FENC	TR	COHO	1	169	76.278	9.465	0.728	18.930	89.583	74.837	77.720	60	93
LOGG	CARN	74	0805	FENC	TR	COHO	2	467	99.889	10.695	0.495	21.391	114.391	98.909	100.869	73	133
LOGG	CARN	74	1505	FENC	TR	COHO	1	135	80.193	6.479	0.558	12.958	41.978	79.088	81.297	61	89
LOGG	CARN	74	1505	FENC	TR	COHO	2	260	100.858	10.201	0.633	20.402	104.061	99.605	102.110	76	135
LOGG	CARN	74	2205	FENC	TR	COHO	1	195	78.718	7.345	0.526	14.691	53.956	77.676	79.759	60	89
LOGG	CARN	74	2205	FENC	TR	COHO	2	319	99.677	9.262	0.519	18.524	85.785	98.650	100.704	76	129
LOGG	CARN	74	2905	FENC	TR	COHO	1	66	71.803	9.536	1.174	19.071	90.930	69.467	74.139	60	93
LOGG	CARN	74	2905	FENC	TR	COHO	2	43	91.860	8.844	1.349	17.688	78.218	89.150	94.571	78	120
LOGG	CARN	74	0506	FENC	TR	COHO	1	24	67.750	6.967	1.422	13.935	48.543	64.806	70.694	60	80
LOGG	CARN	74	0506	FENC	TR	COHO	2	6	88.500	4.416	1.803	8.832	19.500	83.867	93.133	80	92
LOGG	CARN	74	1206	FENC	TR	COHO	1	23	68.739	6.333	1.321	12.667	40.111	66.006	71.473	60	80
LOGG	CARN	74	1206	FENC	TR	COHO	2	3	92.333	18.009	10.398	36.019	324.333	47.623	137.043	80	113
LOGG	CARN	74	1906	FENC	TR	COHO	1	9	66.333	4.123	1.374	8.246	17.000	63.159	69.508	60	73
LOGG	CARN	74	2105	2	PS	COHO	0	64	40.500	2.649	0.331	5.297	7.016	39.841	41.159	35	49
LOGG	CARN	74	2105	2	PS	COHO	1	51	67.039	12.517	1.753	25.034	156.678	63.516	70.562	53	110
LOGG	CARN	74	2205	3	PS	COHO	0	105	39.771	2.338	0.228	4.676	5.466	39.320	40.223	34	47
LOGG	CARN	74	2205	3	PS	COHO	1	5	65.000	7.176	3.209	14.353	51.500	56.078	73.922	55	71
LOGG	CARN	74	2205	4	PS	COHO	0	178	39.022	2.634	0.197	5.268	6.937	38.632	39.413	35	47
LOGG	CARN	74	2205	4	PS	COHO	1	36	62.139	7.064	1.177	14.127	49.894	59.749	64.529	51	90
LOGG	CARN	74	0106	5	PS	COHO	0	109	40.844	2.314	0.222	4.628	5.355	40.405	41.283	35	47
LOGG	CARN	74	0106	5	PS	COHO	1	9	62.111	8.433	2.811	16.865	71.111	55.618	68.604	50	77
LOGG	CARN	74	2905	6	PS	COHO	0	140	40.386	1.906	0.161	3.813	3.634	40.067	40.705	37	49
LOGG	CARN	74	2905	6	PS	COHO	1	6	62.333	7.230	2.951	14.459	52.267	54.748	69.919	52	70
LOGG	CARN	74	2905	8	PS	COHO	0	72	41.569	2.631	0.310	5.263	6.925	40.952	42.187	35	47
LOGG	CARN	74	2905	8	PS	COHO	1	6	55.167	5.636	2.301	11.272	31.767	49.253	61.080	50	65
LOGG	CARN	74	2505	TOTL	PS	COHO	0	668	40.139	2.530	0.098	5.059	6.399	39.945	40.333	34	49
LOGG	CARN	74	2505	TOTL	PS	COHO	1	111	64.045	10.313	0.979	20.625	106.352	62.107	65.983	50	110
LOGG	CARN	74	1906	2	PS	COHO	0	71	45.690	5.261	0.624	10.521	27.674	44.448	46.933	37	59
LOGG	CARN	74	1906	2	PS	COHO	1	64	69.797	6.183	0.773	12.366	38.228	68.259	71.335	60	87
LOGG	CARN	74	2507	2	SPS	COHO	0	68	47.750	5.293	0.642	10.585	28.011	46.473	49.027	40	63
LOGG	CARN	74	2507	2	SPS	COHO	1	43	74.256	5.328	0.812	10.656	28.385	72.623	75.889	65	87
LOGG	CARN	74	2507	3	SPS	COHO	0	50	45.940	3.878	0.548	7.756	15.037	44.838	47.042	40	58
LOGG	CARN	74	2507	3	SPS	COHO	1	17	72.765	6.260	1.518	12.521	39.191	69.546	75.984	64	85
LOGG	CARN	74	2407	4	SPS	COHO	0	152	45.105	5.162	0.419	10.325	26.651	44.276	45.934	36	63
LOGG	CARN	74	2407	4	SPS	COHO	1	19	72.316	5.628	1.291	11.256	31.673	69.604	75.027	65	83
LOGG	CARN	74	2407	5	SPS	COHO	0	130	43.838	3.617	0.317	7.234	13.082	43.210	44.467	38	60
LOGG	CARN	74	2407	5	SPS	COHO	1	14	76.429	8.821	2.357	17.641	77.802	71.337	81.521	65	101

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	74	2307	6	SPS	COHO	0	75	46.293	4.655	0.538	9.310	21.670	45.224	47.363	39	62
LOGG	CARN	74	2307	6	SPS	COHO	1	13	76.000	5.462	1.515	10.924	29.833	72.698	79.302	65	84
LOGG	CARN	74	2307	8	SPS	COHO	0	69	47.464	5.112	0.615	10.224	26.135	46.239	48.688	39	69
LOGG	CARN	74	2307	8	SPS	COHO	1	6	73.833	3.869	1.579	7.737	14.967	69.774	77.892	70	80
LOGG	CARN	74	2407	TOTL	SPS	COHO	0	543	45.630	4.743	0.204	9.487	22.499	45.227	46.033	36	63
LOGG	CARN	74	1608	2	PS	COHO	1	113	74.106	6.032	0.567	12.063	36.381	72.983	75.230	64	101
LOGG	CARN	74	1608	2	PS	COHO	0	117	50.838	5.906	0.546	11.812	34.879	49.757	51.919	38	67
LOGG	CARN	74	1609	2	SPS	COHO	1	28	77.536	4.534	0.857	9.067	20.554	75.779	79.292	71	90
LOGG	CARN	74	1609	2	SPS	COHO	0	87	52.034	6.074	0.651	12.148	36.894	50.739	53.330	42	68
LOGG	CARN	74	1709	3	SPS	COHO	1	33	77.697	5.554	0.967	11.107	30.843	75.734	79.659	69	93
LOGG	CARN	74	1709	3	SPS	COHO	0	78	48.423	5.368	0.608	10.737	28.819	47.213	49.633	40	62
LOGG	CARN	74	1709	4	SPS	COHO	1	14	75.929	7.741	2.069	15.481	59.918	71.460	80.397	64	87
LOGG	CARN	74	1709	4	SPS	COHO	0	174	47.029	6.232	0.472	12.464	38.837	46.093	47.964	38	67
LOGG	CARN	74	1909	5	SPS	COHO	1	23	78.043	7.559	1.576	15.117	57.134	74.781	81.306	68	92
LOGG	CARN	74	1909	5	SPS	COHO	0	117	47.769	5.944	0.550	11.889	35.334	46.681	48.857	38	68
LOGG	CARN	74	1809	6	SPS	COHO	1	13	81.308	9.647	2.676	19.294	93.064	75.475	87.140	69	103
LOGG	CARN	74	1809	6	SPS	COHO	0	96	50.479	6.323	0.645	12.646	39.979	49.201	51.757	41	68
LOGG	CARN	74	1809	8	SPS	COHO	1	17	77.353	5.231	1.269	10.463	27.368	74.663	80.043	69	85
LOGG	CARN	74	1809	8	SPS	COHO	0	88	51.943	5.383	0.574	10.765	28.974	50.801	53.085	44	68
LOGG	CARN	74	1709	TOTL	SPS	COHO	1	3	77.667	3.786	2.186	7.572	14.333	68.268	87.066	75	82
LOGG	CARN	74	1709	TOTL	SPS	COHO	0	652	49.518	6.625	0.259	13.249	43.884	49.005	50.032	38	68
LOGG	CARN	74	1510	2	PS	COHO	1	98	78.531	6.487	0.655	12.975	42.087	77.233	79.828	69	103
LOGG	CARN	74	1510	2	PS	COHO	0	93	53.849	6.331	0.657	12.663	40.086	52.550	55.149	43	70
LOGG	CARN	74	1510	4	PS	COHO	1	3	77.667	2.517	1.453	5.033	6.333	71.419	83.914	75	80
LOGG	CARN	74	1510	4	PS	COHO	0	84	48.024	6.497	0.709	12.995	42.216	46.613	49.435	40	70
LOGG	CARN	74	1510	5	PS	COHO	0	64	50.750	6.058	0.757	12.116	36.698	49.243	52.257	41	68
LOGG	CARN	74	1510	5	PS	COHO	1	4	83.250	3.775	1.887	7.550	14.250	77.248	89.252	79	88
LOGG	CARN	74	1510	8	PS	COHO	0	19	52.211	4.638	1.064	9.276	21.508	49.976	54.445	45	61
LOGG	CARN	74	1510	2458	PS	COHO	0	260	51.085	6.640	0.412	13.281	44.093	50.269	51.900	40	70
LOGG	CARN	74	1510	2458	PS	COHO	1	7	80.857	4.259	1.610	8.519	18.143	76.913	84.801	75	88
LOGG	CARN	74	2905	TOTL	PS	RBT	1	21	55.571	4.600	1.004	9.199	21.157	53.474	57.669	47	65
LOGG	CARN	74	2507	2	SPS	RBT	0	2	34.000	1.414	1.000	2.828	2.000	21.290	46.710	33	35
LOGG	CARN	74	2507	2	SPS	RBT	1	8	84.250	11.323	4.003	22.646	128.214	74.802	93.698	70	100
LOGG	CARN	74	2507	2	SPS	RBT	2	3	126.667	8.021	4.631	16.042	64.333	106.754	146.579	119	135
LOGG	CARN	74	2507	2	SPS	RBT	3	2	148.500	7.778	5.500	15.556	60.500	78.595	218.405	143	154
LOGG	CARN	74	2507	3	SPS	RBT	0	2	37.000	1.414	1.000	2.828	2.000	24.290	49.710	36	38
LOGG	CARN	74	2507	3	SPS	RBT	1	7	79.143	6.866	2.595	13.732	47.143	72.785	85.501	69	88
LOGG	CARN	74	2407	4	SPS	RBT	2	3	122.000	2.646	1.528	5.292	7.000	115.432	128.568	119	124
LOGG	CARN	74	2407	4	SPS	RBT	0	12	34.333	2.060	0.595	4.119	4.242	33.025	35.641	31	37
LOGG	CARN	74	2407	5	SPS	RBT	0	5	73.200	5.805	2.596	11.610	33.700	65.983	80.417	66	82
LOGG	CARN	74	2407	5	SPS	RBT	1	37	35.000	2.297	0.378	4.595	5.278	34.237	35.763	32	40
LOGG	CARN	74	2307	5	SPS	RBT	3	6	73.167	6.616	2.701	13.231	43.767	66.226	80.108	65	82
LOGG	CARN	74	2307	6	SPS	RBT	0	1	177.000								
LOGG	CARN	74	2307	6	SPS	RBT	1	57	33.754	1.467	0.194	2.935	2.153	33.366	34.143	31	37
LOGG	CARN	74	2307	8	SPS	RBT	0	12	73.750	6.649	1.919	13.297	44.205	69.528	77.972	60	88
LOGG	CARN	74	2307	8	SPS	RBT	1	41	34.024	2.877	0.449	5.753	8.274	33.117	34.932	29	40
LOGG	CARN	74	1608	2	PS	RBT	0	14	68.786	4.807	1.285	9.613	23.104	66.011	71.561	61	77
LOGG	CARN	74	1608	2	PS	RBT	1	2	40.000	2.828	2.000	5.657	8.000	14.580	65.420	38	42
LOGG	CARN	74	1608	2	PS	RBT	2	2	77.500	7.778	5.500	15.556	60.500	7.595	147.405	72	83
LOGG	CARN	74	1609	2	SPS	RBT	0	3	116.333	16.442	9.493	32.884	270.333	75.515	157.152	104	135
								4	52.500	2.082	1.041	4.163	4.333	49.190	55.810	50	55

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	74	1609	2	SPS	RBT	1	8	89.125	14.317	5.062	28.634	204.982	77.179	101.071	75	116
LOGG	CARN	74	1609	2	SPS	RBT	2	1	125.000								
LOGG	CARN	74	1709	3,	SPS	RBT	0	4	57.500	3.109	1.555	6.218	9.667	52.556	62.444	55	62
LOGG	CARN	74	1709	3	SPS	RBT	1	9	85.222	7.612	2.537	15.224	57.944	79.361	91.084	74	96
LOGG	CARN	74	1709	3	SPS	RBT	2	3	125.000	1.000	0.577	2.000	1.000	122.517	127.483	124	126
LOGG	CARN	74	1709	4	SPS	RBT	0	13	52.231	5.134	1.424	10.268	26.359	49.127	55.335	46	64
LOGG	CARN	74	1709	4	SPS	RBT	1	6	79.833	6.853	2.798	13.706	46.967	72.643	87.024	72	89
LOGG	CARN	74	1909	5	SPS	RBT	0	57	41.842	5.161	0.684	10.322	26.635	40.475	43.209	32	51
LOGG	CARN	74	1909	5	SPS	RBT	1	4	82.750	4.193	2.097	8.386	17.583	76.083	89.417	80	89
LOGG	CARN	74	1809	6	SPS	RBT	0	36	41.833	3.427	0.571	6.854	11.743	40.674	42.993	36	48
LOGG	CARN	74	1809	6	SPS	RBT	1	9	78.333	8.047	2.682	16.093	64.750	72.137	84.529	69	93
LOGG	CARN	74	1809	6	SPS	RBT	3	1	141.000								
LOGG	CARN	74	1809	8	SPS	RBT	0	63	46.159	7.033	0.886	14.065	49.458	44.396	47.922	35	69
LOGG	CARN	74	1809	8	SPS	RBT	1	7	77.143	4.598	1.738	9.196	21.143	72.885	81.401	72	86
LOGG	CARN	74	1809	8	SPS	RBT	2	2	126.500	14.849	10.500	29.698	220.500	-6.955	259.955	116	137
LOGG	CARN	74	1909	TOTL	SPS	RBT	0	176	44.500	6.199	0.467	12.397	38.423	43.575	45.425	32	64
LOGG	CARN	74	1909	TOTL	SPS	RBT	1	44	83.000	10.546	1.590	21.091	111.209	79.804	86.196	69	116
LOGG	CARN	74	1909	TOTL	SPS	RBT	2	4	128.000	6.055	3.028	12.111	36.667	118.372	137.628	124	137
LOGG	CARN	74	1909	TOTL	SPS	RBT	3	1	141.000								
LOGG	CARN	74	1510	58	PS	RBT	0	24	45.208	3.362	0.686	6.724	11.303	43.788	46.629	37	52
LOGG	CARN	74	2105	TOTL	SPS	ALUT	-	171	59.076	11.481	0.878	22.962	131.812	57.338	60.814	36	104
LOGG	CARN	74	1906	2	SPS	ALUT	-	102	55.500	8.275	0.819	16.549	68.470	53.878	57.122	38	82
LOGG	CARN	74	2507	2	SPS	ALUT	-	182	60.165	11.966	0.887	23.931	143.177	58.409	61.921	40	101
LOGG	CARN	74	2507	3	SPS	ALUT	-	16	68.563	13.721	3.430	27.442	188.262	61.256	75.869	53	103
LOGG	CARN	74	2407	4	SPS	ALUT	-	4	73.000	16.793	8.396	33.586	282.000	46.299	99.701	51	90
LOGG	CARN	74	2407	5	SPS	ALUT	-	24	82.083	12.086	2.467	24.173	146.080	76.976	87.190	65	105
LOGG	CARN	74	2307	6	SPS	ALUT	-	13	72.000	8.554	2.372	17.108	73.167	66.828	77.172	59	87
LOGG	CARN	74	2307	8	SPS	ALUT	-	39	80.487	10.850	1.737	21.701	117.730	76.978	83.997	55	103
LOGG	CARN	74	1608	2	SPS	ALUT	-	84	56.560	9.967	1.087	19.933	99.334	54.396	58.724	40	78
LOGG	CARN	74	1609	2	SPS	ALUT	-	131	59.809	10.318	0.901	20.636	106.463	58.024	61.594	43	84
LOGG	CARN	74	1709	3	SPS	ALUT	-	37	70.162	14.375	2.363	28.750	206.640	65.388	74.936	51	108
LOGG	CARN	74	1709	4	SPS	ALUT	-	6	76.833	5.601	2.286	11.201	31.367	70.957	82.709	71	83
LOGG	CARN	74	1909	5	SPS	ALUT	-	30	78.567	11.530	2.105	23.060	132.944	74.272	82.861	59	102
LOGG	CARN	74	1809	6	SPS	ALUT	-	14	81.857	8.934	2.388	17.869	79.824	76.699	87.015	66	101
LOGG	CARN	74	1809	8	SPS	ALUT	-	17	78.529	9.395	2.279	18.790	88.265	73.699	83.360	63	95
LOGG	CARN	74	1906	2	SPS	ASPR	-	16	61.438	10.727	2.682	21.453	115.063	55.726	67.149	45	80
LOGG	CARN	74	2507	2	SPS	ASPR	-	3	90.000	12.124	7.000	24.249	147.000	59.900	120.100	79	103
LOGG	CARN	74	1608	2	SPS	ASPR	-	2	52.000	5.657	4.000	11.314	32.000	1.160	102.840	48	56
LOGG	CARN	74	1609	2	SPS	ASPR	-	6	89.833	4.355	1.778	8.710	18.967	85.264	94.403	83	94
LOGG	CARN	74	1709	3	SPS	ASPR	-	2	103.000	7.071	5.000	14.142	50.000	39.450	166.550	98	108
LOGG	CARN	74	1906	UPER	S	CT	1	9	60.667	7.583	2.528	15.166	57.500	54.828	66.505	50	73
LOGG	CARN	74	1906	UPER	S	CT	2	13	109.000	14.183	3.934	28.367	201.167	100.424	117.576	87	127
LOGG	CARN	74	1906	UPER	S	CT	3	7	138.714	9.995	3.778	19.990	99.905	129.459	147.970	131	160
LOGG	CARN	74	2009	UPER	S	CT	0	30	38.667	4.964	0.906	9.928	24.644	36.818	40.516	32	49
LOGG	CARN	74	2009	UPER	S	CT	1	26	75.692	6.342	1.244	12.684	40.222	73.130	78.254	65	88
LOGG	CARN	74	2009	UPER	S	CT	2	17	113.765	11.031	2.676	22.063	121.691	108.093	119.437	92	132
LOGG	CARN	74	2009	UPER	S	CT	3	4	143.500	11.210	5.605	22.420	125.667	125.676	161.324	135	160
LOGG	CARN	74	2006	2100	S	CT	0	12	26.333	0.778	0.225	1.557	0.606	25.839	26.828	25	27
LOGG	CARN	74	2006	2100	S	CT	1	6	73.167	8.159	3.331	16.318	66.567	64.606	81.727	63	83
LOGG	CARN	74	2006	2100	S	CT	2	7	109.429	9.813	3.709	19.625	96.286	100.342	118.515	95	119
LOGG	CARN	74	2006	2100	S	CT	3	2	156.500	21.920	15.500	43.841	480.500	-40.505	353.505	141	172

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	74	1809	2100	S	CT	0	48	47.208	6.025	0.870	12.049	36.296	45.460	48.956	32	59
LOGG	CARN	74	1809	2100	S	CT	1	19	83.895	10.671	2.448	21.343	113.877	78.754	89.036	65	100
LOGG	CARN	74	1809	2100	S	CT	2	2	117.500	3.536	2.500	7.071	12.500	85.725	149.275	115	120
LOGG	CARN	74	1809	2100	S	CT	3	2	156.500	12.021	8.500	24.042	144.500	48.465	264.535	148	165
LOGG	CARN	74	2006	1600	S	COHO	0	203	42.862	3.872	0.272	7.744	14.991	42.324	43.400	37	54
LOGG	CARN	74	2006	1600	S	COHO	1	35	68.200	6.712	1.134	13.423	45.047	65.897	70.503	56	85
LOGG	CARN	74	0208	1600	PS	COHO	0	67	48.269	4.876	0.596	9.752	23.775	47.083	49.454	39	59
LOGG	CARN	74	0208	1600	PS	COHO	1	9	72.222	7.155	2.385	14.310	51.194	66.713	77.732	64	83
LOGG	CARN	74	1909	1600	S	COHO	0	134	49.209	6.114	0.528	12.229	37.385	48.163	50.255	38	67
LOGG	CARN	74	1909	1600	S	COHO	1	23	76.435	6.163	1.285	12.326	37.984	73.775	79.095	69	92
LOGG	CARN	74	1810	1600	PS	COHO	0	72	48.472	4.979	0.587	9.957	24.788	47.305	49.640	37	61
LOGG	CARN	74	1810	1600	PS	COHO	1	12	75.500	5.617	1.621	11.233	31.545	71.933	79.067	68	87
LOGG	CARN	74	2006	1600	S	CT	1	6	63.833	5.707	2.330	11.413	32.567	57.846	69.821	53	69
LOGG	CARN	74	2006	1600	S	CT	2	2	118.000	11.314	8.000	22.627	128.000	16.320	219.680	110	126
LOGG	CARN	74	2006	1600	S	CT	3	3	137.667	9.292	5.364	18.583	86.333	114.599	160.734	130	148
LOGG	CARN	74	1909	1600	S	CT	0	1	37.000								
LOGG	CARN	74	1909	1600	S	CT	1	4	77.000	4.546	2.273	9.092	20.667	69.772	84.228	71	82
LOGG	CARN	74	1909	1600	S	CT	2	1	113.000								
LOGG	CARN	74	1909	1600	S	CT	3	2	171.500	19.092	13.500	38.184	364.500	-0.085	343.085	158	185
LOGG	CARN	74	2708	USEL	S	COHO	0	22	57.500	5.466	1.165	10.933	29.881	55.076	59.924	47	69
LOGG	CARN	74	2708	USEL	S	CT	0	8	42.375	6.093	2.154	12.186	37.125	37.291	47.459	33	51
LOGG	CARN	74	2708	USEL	S	CT	1	28	85.286	8.415	1.590	16.829	70.804	82.026	88.546	72	102
LOGG	CARN	74	2708	USEL	S	CT	2	3	131.667	8.021	4.631	16.042	64.333	111.754	151.579	124	140
LOGG	CARN	74	2708	USEL	S	CT	3	3	161.667	30.616	17.676	61.232	937.333	85.659	237.674	143	197
LOGG	CARN	74	2808	FRED	S	ALUT	-	49	75.735	18.989	2.713	37.978	360.574	70.282	81.187	44	115
LOGG	CARN	74	2808	FRED	S	COHO	0	86	56.919	9.932	1.071	19.864	98.640	54.787	59.050	42	81
LOGG	CARN	74	2808	FRED	S	RBT	0	2	47.000	4.243	3.000	8.485	18.000	8.870	85.130	44	50
LOGG	CARN	74	2808	FRED	S	RBT	1	1	117.000								
LOGG	CARN	74	2808	FRED	S	ALUT	-	150	39.493	8.253	0.674	16.507	68.117	38.159	40.828	27	65
LOGG	CARN	74	2808	FRED	S	ASPR	-	181	61.646	17.521	1.302	35.041	306.974	59.068	64.225	37	147
LOGG	CARN	74	2808	PACH	S	COHO	0	64	51.016	6.303	0.788	12.606	39.730	49.448	52.584	40	64
LOGG	CARN	74	2808	PACH	S	COHO	1	16	77.125	10.868	2.717	21.736	118.117	71.338	82.912	66	99
LOGG	CARN	74	2808	PACH	S	RBT	0	13	43.692	4.309	1.195	8.617	18.564	41.087	46.297	37	51
LOGG	CARN	74	2808	PACH	S	RBT	1	6	96.667	10.231	4.177	20.461	104.667	85.933	107.401	83	114
LOGG	CARN	74	2808	PACH	S	ALUT	-	24	60.458	10.529	2.149	21.059	110.868	56.009	64.907	46	89
LOGG	CARN	74	2808	PACH	S	ASPR	-	63	90.175	17.252	2.174	34.504	297.630	85.849	94.500	60	144
LOGG	CARN	74	2908	RITH	S	CT	0	105	52.571	6.786	0.662	13.573	46.055	51.260	53.883	40	67
LOGG	CARN	74	2908	RITH	S	CT	1	41	92.732	8.567	1.338	17.135	73.401	90.029	95.434	78	113
LOGG	CARN	74	2908	RITH	S	CT	2	7	133.714	9.123	3.448	18.247	83.238	125.266	142.163	124	147
LOGG	CARN	74	2908	RITH	S	CT	3	3	171.000	18.248	10.536	36.497	333.000	125.697	216.303	159	192
LOGG	CARN	75	2603	FENC	TR	COHO	1	5	65.200	3.271	1.463	6.542	10.700	61.133	69.267	62	70
LOGG	CARN	75	2603	FENC	TR	COHO	2	1	85.000								
LOGG	CARN	75	0204	FENC	TR	COHO	1	28	66.714	5.669	1.071	11.338	32.138	64.518	68.911	60	79
LOGG	CARN	75	0204	FENC	TR	COHO	2	15	82.733	3.955	1.021	7.909	15.638	80.548	84.918	77	91
LOGG	CARN	75	0904	FENC	TR	COHO	1	35	67.457	5.403	0.913	10.807	29.197	65.603	69.311	60	78
LOGG	CARN	75	0904	FENC	TR	COHO	2	8	85.250	7.186	2.541	14.373	51.643	79.254	91.246	77	97
LOGG	CARN	75	1604	FENC	TR	COHO	1	20	67.850	5.537	1.238	11.074	30.661	65.262	70.438	60	77
LOGG	CARN	75	1604	FENC	TR	COHO	2	3	84.000	9.849	5.686	19.698	97.000	59.549	108.451	76	95
LOGG	CARN	75	2304	FENC	TR	COHO	1	120	70.958	7.073	0.646	14.145	50.023	69.680	72.237	60	88
LOGG	CARN	75	2304	FENC	TR	COHO	2	60	86.817	10.499	1.355	20.997	110.220	84.106	89.527	72	122

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	75	3004	FENC	TR	COHO	1	206	71.505	6.695	0.466	13.391	44.827	70.581	72.428	60	88
LOGG	CARN	75	3004	FENC	TR	COHO	2	103	93.893	9.847	0.970	19.694	96.959	91.972	95.814	78	125
LOGG	CARN	75	0705	FENC	TR	COHO	1	225	75.093	7.501	0.500	15.002	56.264	74.103	76.083	60	92
LOGG	CARN	75	0705	FENC	TR	COHO	2	188	95.532	8.992	0.656	17.983	80.849	94.233	96.830	75	120
LOGG	CARN	75	1405	FENC	TR	COHO	1	176	77.886	8.067	0.608	16.134	65.073	76.682	79.090	60	91
LOGG	CARN	75	1405	FENC	TR	COHO	2	210	96.167	8.073	0.557	16.146	65.173	95.064	97.270	75	130
LOGG	CARN	75	2105	FENC	TR	COHO	1	71	76.972	6.153	0.730	12.306	37.856	75.519	78.425	64	92
LOGG	CARN	75	2105	FENC	TR	COHO	2	97	92.887	9.216	0.936	18.432	84.935	91.034	94.739	75	126
LOGG	CARN	75	2805	FENC	TR	COHO	1	142	82.232	9.078	0.762	18.156	82.407	80.724	83.741	60	100
LOGG	CARN	75	2805	FENC	TR	COHO	2	53	98.755	9.319	1.280	18.638	86.843	96.195	101.315	87	125
LOGG	CARN	75	0406	FENC	TR	COHO	1	97	79.278	10.350	1.051	20.700	107.120	77.198	81.359	60	100
LOGG	CARN	75	0406	FENC	TR	COHO	2	40	100.650	9.407	1.487	18.814	88.490	97.646	103.654	87	124
LOGG	CARN	75	1106	FENC	TR	COHO	1	21	79.000	9.295	2.028	18.590	86.400	74.761	83.239	61	92
LOGG	CARN	75	1106	FENC	TR	COHO	2	5	98.400	3.209	1.435	6.419	10.300	94.410	102.390	96	104
LOGG	CARN	75	1806	FENC	TR	COHO	1	5	68.200	5.805	2.596	11.610	33.700	60.983	75.417	60	74
LOGG	CARN	75	0204	FENC	TR	COHO	0	60	37.100	1.602	0.207	3.204	2.566	36.686	37.514	32	40
LOGG	CARN	75	1004	FENC	TR	COHO	0	62	36.581	1.181	0.150	2.362	1.395	36.282	36.879	34	39
LOGG	CARN	75	2004	FENC	TR	COHO	0	54	38.759	1.196	0.163	2.393	1.432	38.434	39.085	37	41
LOGG	CARN	75	3004	FENC	TR	COHO	0	52	38.712	1.054	0.146	2.108	1.111	38.419	39.004	36	42
LOGG	CARN	75	1005	FENC	TR	COHO	0	50	38.860	1.370	0.194	2.741	1.878	38.470	39.250	35	41
LOGG	CARN	75	2505	FENC	TR	COHO	0	31	38.935	1.672	0.300	3.344	2.796	38.323	39.548	34	41
LOGG	CARN	75	0406	FENC	TR	COHO	0	73	39.479	1.454	0.170	2.908	2.114	39.141	39.818	36	42
LOGG	CARN	75	1604	FENC	TR	CHUM	0	50	41.480	0.614	0.087	1.228	0.377	41.305	41.655	40	43
LOGG	CARN	75	2604	FENC	TR	CHUM	0	50	43.240	1.001	0.142	2.002	1.002	42.958	43.525	41	45
LOGG	CARN	75	0405	FENC	TR	CHUM	0	51	41.078	1.111	0.156	2.221	1.234	40.766	41.391	40	45
LOGG	CARN	75	1005	FENC	TR	CHUM	0	50	41.980	0.937	0.132	1.873	0.877	41.714	42.246	40	44
LOGG	CARN	75	2005	FENC	TR	CHUM	0	50	41.280	0.882	0.125	1.763	0.777	41.029	41.531	39	43
LOGG	CARN	75	0406	FENC	TR	CHUM	0	26	41.423	1.027	0.201	2.053	1.054	41.008	41.838	40	44
LOGG	CARN	75	2205	2	PS	COHO	0	61	40.770	2.597	0.333	5.195	6.746	40.105	41.436	35	48
LOGG	CARN	75	2205	2	PS	COHO	1	7	58.714	5.219	1.973	10.438	27.238	53.881	63.547	51	66
LOGG	CARN	75	2205	2	PS	COHO	2	3	83.333	1.528	0.882	3.055	2.333	79.541	87.126	82	85
LOGG	CARN	75	2205	3	PS	COHO	0	71	38.901	1.972	0.234	3.945	3.890	38.436	39.367	34	43
LOGG	CARN	75	2205	4	PS	COHO	0	105	40.057	1.980	0.193	3.960	3.920	39.675	40.440	36	49
LOGG	CARN	75	2205	4	PS	COHO	1	25	58.080	4.743	0.949	9.485	22.493	56.126	60.034	50	67
LOGG	CARN	75	2205	4	PS	COHO	2	3	89.667	9.609	5.548	19.218	92.333	65.811	113.522	81	100
LOGG	CARN	75	2205	5	PS	COHO	0	51	40.118	1.796	0.252	3.592	3.226	39.612	40.623	38	48
LOGG	CARN	75	2205	5	PS	COHO	1	2	58.500	0.707	0.500	1.414	0.500	52.145	64.855	58	59
LOGG	CARN	75	2205	6	PS	COHO	0	75	39.867	1.862	0.215	3.725	3.468	39.439	40.295	35	46
LOGG	CARN	75	2205	6	PS	COHO	1	3	58.667	8.145	4.702	16.289	66.333	38.447	78.886	53	68
LOGG	CARN	75	2205	8	PS	COHO	0	54	39.685	2.072	0.282	4.145	4.295	39.121	40.249	35	44
LOGG	CARN	75	2205	8	PS	COHO	1	2	51.500	0.707	0.500	1.414	0.500	45.145	57.855	51	52
LOGG	CARN	75	2205	TOTL	PS	COHO	1	39	57.923	4.938	0.791	9.877	24.389	56.326	59.520	50	68
LOGG	CARN	75	2205	TOTL	PS	COHO	2	6	86.500	7.064	2.884	14.128	49.900	79.088	93.912	81	100
LOGG	CARN	75	1706	2	PS	COHO	0	105	42.943	3.116	0.304	6.232	9.708	42.341	43.545	37	51
LOGG	CARN	75	1706	2	PS	COHO	1	4	67.250	9.069	4.535	18.138	82.250	52.830	81.670	54	74
LOGG	CARN	75	2107	2	SPS	COHO	0	157	49.682	5.342	0.426	10.684	28.539	48.837	50.526	40	65
LOGG	CARN	75	2107	2	SPS	COHO	1	20	76.050	4.817	1.077	9.635	23.206	73.799	78.301	67	84
LOGG	CARN	75	2407	3	SPS	COHO	0	82	47.195	4.144	0.458	8.288	17.171	46.284	48.106	40	58
LOGG	CARN	75	2407	3	SPS	COHO	1	14	73.071	6.415	1.714	12.829	41.148	69.368	76.775	66	87
LOGG	CARN	75	2307	4	SPS	COHO	0	217	45.267	3.846	0.261	7.691	14.789	44.750	45.784	35	60
LOGG	CARN	75	2307	4	SPS	COHO	1	12	67.333	3.627	1.047	7.253	13.152	65.030	69.636	62	73

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	75	2307	5	SPS	COHO	0	101	45.446	4.708	0.469	9.417	22.170	44.518	46.373	38	61
LOGG	CARN	75	2307	5	SPS	COHO	1	11	70.727	5.140	1.550	10.280	26.418	67.271	74.183	64	80
LOGG	CARN	75	2207	6	SPS	COHO	0	119	47.815	3.608	0.331	7.216	13.016	47.160	48.470	40	61
LOGG	CARN	75	2207	6	SPS	COHO	1	15	70.867	4.704	1.214	9.407	22.124	68.268	73.466	64	79
LOGG	CARN	75	2207	8	SPS	COHO	0	73	47.863	5.339	0.625	10.679	28.508	46.619	49.107	37	63
LOGG	CARN	75	2307	TOTL	SPS	COHO	1	2	71.000	0.000	0.000	0.000	0.000	71.000	71.000	71	71
LOGG	CARN	75	2108	2	PS	COHO	0	72	53.403	5.954	0.702	11.909	35.455	52.006	54.799	42	66
LOGG	CARN	75	2108	2	PS	COHO	1	5	74.400	3.209	1.435	6.419	10.300	70.410	78.390	72	80
LOGG	CARN	75	1809	2	SPS	COHO	0	240	56.496	5.445	0.351	10.890	29.649	55.800	57.192	43	68
LOGG	CARN	75	1809	2	SPS	COHO	1	51	76.667	7.221	1.011	14.443	52.147	74.634	78.699	68	92
LOGG	CARN	75	1609	3	SPS	COHO	0	92	53.217	5.553	0.579	11.105	30.831	52.071	54.364	42	69
LOGG	CARN	75	1609	3	SPS	COHO	1	11	80.455	6.440	1.942	12.880	41.473	76.125	84.785	70	91
LOGG	CARN	75	1609	4	SPS	COHO	0	266	52.098	5.895	0.361	11.790	34.753	51.382	52.813	39	67
LOGG	CARN	75	1609	4	SPS	COHO	1	26	70.923	5.506	1.080	11.012	30.314	68.699	73.147	63	85
LOGG	CARN	75	1709	5	SPS	COHO	0	220	52.464	5.086	0.343	10.172	25.866	51.785	53.143	42	66
LOGG	CARN	75	1709	5	SPS	COHO	1	14	73.643	7.045	1.883	14.090	49.632	69.576	77.710	65	90
LOGG	CARN	75	1709	6	SPS	COHO	0	133	56.940	5.632	0.488	11.265	31.724	55.973	57.907	43	68
LOGG	CARN	75	1709	6	SPS	COHO	1	33	78.182	6.531	1.137	13.062	42.653	75.874	80.490	68	94
LOGG	CARN	75	1809	8	SPS	COHO	0	124	53.419	5.834	0.524	11.668	34.034	52.382	54.457	43	70
LOGG	CARN	75	1809	8	SPS	COHO	1	5	79.200	5.630	2.518	11.261	31.700	72.200	86.200	74	88
LOGG	CARN	75	1709	TOTL	SPS	COHO	1	141	75.986	7.160	0.603	14.321	51.271	74.792	77.180	63	94
LOGG	CARN	75	2205	TOTL	PS	RBT	1	15	53.667	4.995	1.290	9.990	24.952	50.907	56.427	45	64
LOGG	CARN	75	2107	2	SPS	RBT	0	5	40.800	1.095	0.490	2.191	1.200	39.438	42.162	39	42
LOGG	CARN	75	2107	2	SPS	RBT	1	2	93.000	4.243	3.000	8.485	18.000	54.870	131.130	90	96
LOGG	CARN	75	2107	2	SPS	RBT	2	3	116.000	5.196	3.000	10.392	27.000	103.100	128.900	110	119
LOGG	CARN	75	2407	3	SPS	RBT	0	29	41.586	2.860	0.531	5.720	8.180	40.497	42.675	35	46
LOGG	CARN	75	2307	4	SPS	RBT	0	44	38.273	1.662	0.251	3.323	2.761	37.769	38.776	35	42
LOGG	CARN	75	2307	4	SPS	RBT	1	8	78.125	9.078	3.210	18.156	82.411	70.550	85.700	67	95
LOGG	CARN	75	2307	4	SPS	RBT	2	1	111.000								
LOGG	CARN	75	2307	5	SPS	RBT	0	57	38.386	2.226	0.295	4.452	4.956	37.796	38.976	33	45
LOGG	CARN	75	2307	5	SPS	RBT	1	2	95.500	0.707	0.500	1.414	0.500	89.145	101.855	95	96
LOGG	CARN	75	2307	5	SPS	RBT	2	1	102.000								
LOGG	CARN	75	2207	6	SPS	RBT	0	58	34.362	2.894	0.380	5.788	8.375	33.602	35.122	31	41
LOGG	CARN	75	2207	6	SPS	RBT	1	11	73.727	4.901	1.478	9.802	24.018	70.432	77.022	66	81
LOGG	CARN	75	2207	6	SPS	RBT	2	4	99.000	2.944	1.472	5.888	8.667	94.319	103.681	95	102
LOGG	CARN	75	2207	8	SPS	RBT	0	68	34.397	4.034	0.489	8.068	16.273	33.424	35.371	28	43
LOGG	CARN	75	2207	8	SPS	RBT	1	8	67.500	4.957	1.753	9.914	24.571	63.364	71.636	61	75
LOGG	CARN	75	2207	8	SPS	RBT	2	1	106.000								
LOGG	CARN	75	2307	TOTL	SPS	RBT	0	261	36.835	3.882	0.240	7.764	15.069	36.359	37.311	28	46
LOGG	CARN	75	2307	TOTL	SPS	RBT	1	30	75.200	9.393	1.715	18.787	88.234	71.701	78.699	61	95
LOGG	CARN	75	2307	TOTL	SPS	RBT	2	11	104.545	7.160	2.159	14.321	51.273	99.731	109.360	96	119
LOGG	CARN	75	1809	2	SPS	RBT	0	19	55.789	3.293	0.755	6.585	10.842	54.203	57.376	50	62
LOGG	CARN	75	1809	2	SPS	RBT	1	3	91.333	11.719	6.766	23.438	137.333	62.240	120.427	78	100
LOGG	CARN	75	1609	3	SPS	RBT	2	2	112.000	4.243	3.000	8.485	18.000	73.870	150.130	109	115
LOGG	CARN	75	1609	3	SPS	RBT	0	26	47.000	7.037	1.380	14.074	49.520	44.157	49.843	31	56
LOGG	CARN	75	1609	3	SPS	RBT	1	2	103.500	2.121	1.500	4.243	4.500	84.435	122.565	102	105
LOGG	CARN	75	1609	3	SPS	RBT	2	1	114.000								
LOGG	CARN	75	1609	4	SPS	RBT	0	42	52.214	3.482	0.537	6.964	12.124	51.134	53.294	45	59
LOGG	CARN	75	1609	4	SPS	RBT	1	2	90.500	4.950	3.500	9.899	24.500	46.015	134.985	87	94
LOGG	CARN	75	1709	5	SPS	RBT	0	75	49.587	3.333	0.385	6.667	11.111	48.821	50.353	43	60

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	75	1709	5	SPS	RBT	1	2	78.000	5.657	4.000	11.314	32.000	27.160	128.840	74	82
LOGG	CARN	75	1709	5	SPS	RBT	2	1	111.000								
LOGG	CARN	75	1709	6	SPS	RBT	0	51	44.490	4.254	0.596	8.508	18.095	43.293	45.687	38	53
LOGG	CARN	75	1709	6	SPS	RBT	1	14	80.571	9.565	2.556	19.131	91.495	75.050	86.093	67	96
LOGG	CARN	75	1709	6	SPS	RBT	2	3	110.333	5.859	3.383	11.719	34.333	95.787	124.880	106	117
LOGG	CARN	75	1809	8	SPS	RBT	0	60	44.350	5.572	0.719	11.144	31.045	42.911	45.789	34	56
LOGG	CARN	75	1809	8	SPS	RBT	1	15	81.933	8.956	2.312	17.912	80.210	76.985	86.882	71	104
LOGG	CARN	75	1709	TOTL	SPS	RBT	0	274	48.055	5.776	0.349	11.552	33.363	47.364	48.746	31	62
LOGG	CARN	75	1709	TOTL	SPS	RBT	1	39	83.897	10.417	1.668	20.834	108.516	80.528	87.267	67	105
LOGG	CARN	75	1709	TOTL	SPS	RBT	2	8	111.375	3.739	1.322	7.479	13.982	108.255	114.495	106	117
LOGG	CARN	75	2307	TOTL	SPS	CT	1	22	73.727	9.367	1.997	18.733	87.732	69.574	77.881	63	93
LOGG	CARN	75	2307	TOTL	SPS	CT	2	8	118.875	11.716	4.142	23.432	137.268	109.099	128.651	100	132
LOGG	CARN	75	2307	TOTL	SPS	CT	3	4	153.750	17.595	8.797	35.190	309.583	125.774	181.726	137	178
LOGG	CARN	75	1709	TOTL	SPS	CT	0	2	57.500	0.707	0.500	1.414	0.500	51.145	63.855	57	58
LOGG	CARN	75	1709	TOTL	SPS	CT	1	10	80.900	6.173	1.952	12.345	38.100	76.489	85.311	72	90
LOGG	CARN	75	1709	TOTL	SPS	CT	2	7	125.000	14.503	5.482	29.006	210.333	111.570	138.430	100	139
LOGG	CARN	75	1709	TOTL	SPS	CT	3	5	167.400	33.590	15.022	67.180	1128.300	125.639	209.161	140	216
LOGG	CARN	75	2205	2	PS	ALUT	-	159	56.013	9.574	0.759	19.148	91.658	54.509	57.516	39	94
LOGG	CARN	75	2205	TOTL	PS	ALUT	-	180	57.922	11.125	0.829	22.249	123.759	56.280	59.564	39	95
LOGG	CARN	75	2107	2	SPS	ALUT	-	173	63.295	11.341	0.862	22.682	128.616	61.588	65.002	43	105
LOGG	CARN	75	2407	3	SPS	ALUT	-	14	83.071	11.932	3.189	23.865	142.379	76.183	89.960	63	101
LOGG	CARN	75	2307	4	SPS	ALUT	-	11	73.091	6.774	2.043	13.549	45.891	68.536	77.646	62	87
LOGG	CARN	75	2307	5	SPS	ALUT	-	24	82.083	12.476	2.547	24.952	155.645	76.812	87.355	65	110
LOGG	CARN	75	2207	6	SPS	ALUT	-	14	85.000	9.576	2.559	19.151	91.692	79.472	90.528	67	102
LOGG	CARN	75	2207	8	SPS	ALUT	-	15	78.933	10.627	2.744	21.253	112.924	73.062	84.805	61	97
LOGG	CARN	75	2307	TOTL	SPS	ALUT	-	251	68.753	13.895	0.877	27.791	193.083	67.016	70.490	43	110
LOGG	CARN	75	1808	2	SPS	ALUT	-	121	67.240	10.612	0.965	21.224	112.617	65.329	69.150	51	105
LOGG	CARN	75	1609	3	SPS	ALUT	-	18	84.944	12.628	2.976	25.256	159.467	78.664	91.225	56	108
LOGG	CARN	75	1609	4	SPS	ALUT	-	8	90.500	8.912	3.151	17.825	79.429	83.064	97.936	77	105
LOGG	CARN	75	1709	5	SPS	ALUT	-	24	86.625	12.032	2.456	24.064	144.766	81.541	91.709	51	106
LOGG	CARN	75	1709	6	SPS	ALUT	-	14	90.143	10.640	2.844	21.280	113.209	84.001	96.285	73	111
LOGG	CARN	75	1809	8	SPS	ALUT	-	35	81.543	13.028	2.202	26.056	169.726	77.073	86.013	62	123
LOGG	CARN	75	1709	TOTL	SPS	ALUT	-	220	75.250	14.395	0.971	28.790	207.220	73.328	77.172	51	123
LOGG	CARN	75	2107	2	SPS	ASPR	-	11	81.727	18.628	5.617	37.257	347.018	69.202	94.252	61	124
LOGG	CARN	75	1809	2	SPS	ASPR	-	20	85.500	23.064	5.157	46.128	531.947	74.721	96.279	57	157
LOGG	CARN	75	1806	UPER	S	CT	1	20	65.350	14.481	3.238	28.963	209.713	58.582	72.118	48	88
LOGG	CARN	75	1806	UPER	S	CT	2	16	110.500	14.142	3.536	28.284	200.000	102.969	118.031	92	135
LOGG	CARN	75	1806	UPER	S	CT	3	3	147.000	5.292	3.055	10.583	28.000	133.863	160.137	143	153
LOGG	CARN	75	2006	UPER	S	CT	0	18	38.444	4.148	0.978	8.295	17.203	36.382	40.507	32	45
LOGG	CARN	75	2009	UPER	S	CT	1	16	74.688	5.724	1.431	11.448	32.763	71.640	77.735	65	83
LOGG	CARN	75	2009	UPER	S	CT	2	23	109.913	13.846	2.887	27.693	191.719	103.937	115.889	92	135
LOGG	CARN	75	2009	UPER	S	CT	3	2	158.500	12.021	8.500	24.042	144.500	50.465	266.535	150	167
LOGG	CARN	75	1706	2100	S	CT	1	14	74.071	5.824	1.556	11.648	33.918	70.709	77.433	56	80
LOGG	CARN	75	1706	2100	S	CT	2	3	95.667	8.327	4.807	16.653	69.333	74.995	116.338	89	105
LOGG	CARN	75	1809	2100	S	CT	0	31	45.935	4.795	0.861	9.591	22.996	44.178	47.692	36	57
LOGG	CARN	75	1809	2100	S	CT	1	24	90.875	5.893	1.203	11.785	34.723	88.385	93.365	78	101
LOGG	CARN	75	1809	2100	S	CT	2	6	115.500	10.035	4.097	20.070	100.700	104.971	126.029	105	133
LOGG	CARN	75	1706	1600	S	COHO	0	153	42.752	3.163	0.256	6.326	10.004	42.245	43.258	37	51
LOGG	CARN	75	1706	1600	S	COHO	1	17	66.412	5.948	1.443	11.897	35.382	63.353	69.470	54	76
LOGG	CARN	75	0308	1600	PS	COHO	0	78	47.577	4.929	0.558	9.859	24.299	46.466	48.688	40	61
LOGG	CARN	75	0308	1600	PS	COHO	1	2	73.000	1.414	1.000	2.828	2.000	60.290	85.710	72	74

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	75	1709	1600	S	COHO	0	176	52.023	6.484	0.489	12.968	42.045	51.055	52.990	40	70
LOGG	CARN	75	1709	1600	S	COHO	1	16	79.313	4.332	1.083	8.663	18.763	77.006	81.619	71	88
LOGG	CARN	75	1706	1600	S	CT	1	7	66.429	4.962	1.875	9.924	24.619	61.834	71.023	60	73
LOGG	CARN	75	1709	1600	S	CT	0	5	43.800	6.221	2.782	12.442	38.700	36.066	51.534	33	48
LOGG	CARN	75	1709	1600	S	CT	1	4	76.000	4.690	2.345	9.381	22.000	68.542	83.458	72	81
LOGG	CARN	75	1709	1600	S	CT	2	1	107.000								
LOGG	CARN	75	2508	USEL	S	COHO	0	39	58.564	6.261	1.003	12.522	38.200	56.539	60.589	49	73
LOGG	CARN	75	2508	USEL	S	COHO	1	1	84.000								
LOGG	CARN	75	2508	USEL	S	CT	0	12	39.333	3.822	1.103	7.644	14.606	36.906	41.760	33	44
LOGG	CARN	75	2508	USEL	S	CT	1	13	84.846	8.214	2.278	16.429	67.474	79.880	89.813	76	103
LOGG	CARN	75	2508	USEL	S	CT	2	7	119.429	7.254	2.742	14.508	52.619	112.711	126.146	110	129
LOGG	CARN	75	2508	USEL	S	CT	3	1	174.000								
LOGG	CARN	75	2508	USEL	S	ALUT	-	62	77.613	15.517	1.971	31.033	240.766	73.691	81.534	52	115
LOGG	CARN	75	1909	FRED	SPS	COHO	0	143	65.853	8.159	0.682	16.319	66.577	64.502	67.204	44	80
LOGG	CARN	75	1909	FRED	SPS	COHO	1	3	84.333	2.309	1.333	4.619	5.333	78.600	90.067	83	87
LOGG	CARN	75	1909	FRED	SPS	RBT	0	16	54.750	7.594	1.898	15.188	57.667	50.706	58.794	45	77
LOGG	CARN	75	1909	FRED	SPS	ALUT	-	88	40.068	6.207	0.662	12.414	38.524	38.752	41.385	33	64
LOGG	CARN	75	1909	FRED	SPS	ASPR	-	107	67.542	15.757	1.523	31.513	248.269	64.526	70.558	47	118
LOGG	CARN	75	1909	PACH	SPS	COHO	0	170	56.618	7.739	0.594	15.478	59.894	55.442	57.793	46	79
LOGG	CARN	75	1909	PACH	SPS	COHO	1	20	88.350	7.365	1.647	14.729	54.239	84.908	91.792	80	103
LOGG	CARN	75	1909	PACH	SPS	RBT	0	46	49.478	4.441	0.655	8.882	19.722	48.162	50.794	41	59
LOGG	CARN	75	1909	PACH	SPS	RBT	1	1	85.000								
LOGG	CARN	75	1909	PACH	SPS	RBT	2	1	141.000								
LOGG	CARN	75	1909	PACH	SPS	ALUT	-	9	70.556	9.964	3.321	19.928	99.278	62.883	78.228	60	88
LOGG	CARN	75	1909	PACH	SPS	ASPR	-	46	88.609	16.642	2.454	33.284	276.955	83.677	93.541	63	140
LOGG	CARN	75	2009	RITH	S	CT	0	112	56.741	7.195	0.680	14.389	51.761	55.395	58.087	42	74
LOGG	CARN	75	2009	RITH	S	CT	1	22	95.364	8.921	1.902	17.841	79.576	91.408	99.320	80	115
LOGG	CARN	75	2009	RITH	S	CT	2	8	133.125	12.922	4.569	25.844	166.982	122.343	143.907	119	153
LOGG	CARN	76	0304	FENC	TR	CHUM	0	31	43.032	0.752	0.135	1.504	0.566	42.757	43.306	42	45
LOGG	CARN	76	1404	FENC	TR	CHUM	0	49	43.204	1.000	0.143	1.999	0.999	42.917	43.491	40	45
LOGG	CARN	76	2404	FENC	TR	CHUM	0	57	42.316	0.985	0.130	1.970	0.970	42.055	42.577	40	44
LOGG	CARN	76	0205	FENC	TR	CHUM	0	50	42.520	1.015	0.144	2.030	1.030	42.231	42.809	41	45
LOGG	CARN	76	1105	FENC	TR	CHUM	0	50	42.500	0.909	0.129	1.818	0.827	42.242	42.758	40	45
LOGG	CARN	76	0204	FENC	TR	COHO	1	9	69.444	5.341	1.780	10.682	28.528	65.332	73.557	62	78
LOGG	CARN	76	0704	FENC	TR	COHO	1	53	69.453	4.967	0.682	9.935	24.676	68.088	70.817	60	82
LOGG	CARN	76	0704	FENC	TR	COHO	2	6	81.500	3.450	1.408	6.899	11.900	77.881	85.119	76	86
LOGG	CARN	76	1404	FENC	TR	COHO	1	121	69.091	4.391	0.399	8.783	19.283	68.300	69.881	60	78
LOGG	CARN	76	1404	FENC	TR	COHO	2	29	85.414	6.248	1.160	12.496	39.037	83.035	87.792	75	100
LOGG	CARN	76	2104	FENC	TR	COHO	1	263	72.186	5.893	0.363	11.786	34.725	71.467	72.906	60	85
LOGG	CARN	76	2104	FENC	TR	COHO	2	96	89.323	7.571	0.773	15.141	57.316	87.793	90.853	76	122
LOGG	CARN	76	2804	FENC	TR	COHO	1	220	71.427	6.066	0.409	12.132	36.794	70.618	72.237	60	84
LOGG	CARN	76	2804	FENC	TR	COHO	2	141	91.220	7.787	0.656	15.573	60.630	89.921	92.518	81	119
LOGG	CARN	76	0505	FENC	TR	COHO	1	215	72.493	6.018	0.410	12.036	36.214	71.680	73.306	60	84
LOGG	CARN	76	0505	FENC	TR	COHO	2	189	92.254	8.200	0.596	16.399	67.233	91.073	93.435	81	120
LOGG	CARN	76	1205	FENC	TR	COHO	1	220	74.705	7.324	0.494	14.647	53.634	73.727	75.682	60	90
LOGG	CARN	76	1205	FENC	TR	COHO	2	371	92.658	9.340	0.485	18.680	87.231	91.698	93.618	76	124
LOGG	CARN	76	1905	FENC	TR	COHO	1	187	77.380	8.183	0.598	16.365	66.957	76.195	78.564	60	90
LOGG	CARN	76	1905	FENC	TR	COHO	2	171	95.883	8.372	0.640	16.744	70.092	94.615	97.151	78	125
LOGG	CARN	76	2605	FENC	TR	COHO	1	290	73.831	8.890	0.522	17.781	79.041	72.797	74.865	60	90
LOGG	CARN	76	2605	FENC	TR	COHO	2	116	95.345	8.670	0.805	17.340	75.167	93.751	96.939	78	118

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	76	0206	FENC	TR	COHO	1	49	73.000	10.817	1.545	21.633	117.000	69.894	76.106	60	98
LOGG	CARN	76	0206	FENC	TR	COHO	2	11	103.364	8.686	2.619	17.373	75.455	97.523	109.204	85	115
LOGG	CARN	76	0906	FENC	TR	COHO	1	14	73.643	9.353	2.500	18.706	87.478	68.244	79.042	61	85
LOGG	CARN	76	0906	FENC	TR	COHO	2	1	94.000								
LOGG	CARN	76	1606	FENC	TR	COHO	1	24	69.542	8.915	1.820	17.830	79.476	65.775	73.309	60	90
LOGG	CARN	76	1606	FENC	TR	COHO	2	5	107.200	15.007	6.711	30.013	225.200	88.543	125.857	95	130
LOGG	CARN	76	0304	FENC	TR	COHO	0	54	39.574	0.882	0.120	1.763	0.777	39.334	39.814	38	42
LOGG	CARN	76	1404	FENC	TR	COHO	0	66	37.970	1.324	0.163	2.648	1.753	37.645	38.294	35	40
LOGG	CARN	76	2404	FENC	TR	COHO	0	50	38.540	1.073	0.152	2.146	1.151	38.235	38.845	36	41
LOGG	CARN	76	0205	FENC	TR	COHO	0	53	38.434	0.991	0.136	1.981	0.981	38.162	38.706	36	40
LOGG	CARN	76	1105	FENC	TR	COHO	0	52	37.577	1.226	0.170	2.453	1.504	37.237	37.917	35	41
LOGG	CARN	76	2105	FENC	TR	COHO	0	58	39.138	1.304	0.171	2.608	1.700	38.796	39.480	36	43
LOGG	CARN	76	0406	FENC	TR	COHO	0	34	39.500	2.608	0.447	5.217	6.803	38.592	40.408	32	46
LOGG	CARN	76	1306	FENC	TR	COHO	0	45	37.422	1.631	0.243	3.261	2.659	36.934	37.911	35	44
LOGG	CARN	76	2206	FENC	TR	COHO	0	53	40.943	3.739	0.514	7.477	13.978	39.916	41.970	35	50
LOGG	CARN	76	0407	FENC	TR	COHO	0	64	42.016	3.037	0.380	6.074	9.222	41.260	42.771	34	49
LOGG	CARN	76	1407	FENC	TR	COHO	0	51	43.804	2.522	0.353	5.044	6.361	43.094	44.514	38	50
LOGG	CARN	76	2907	FENC	TR	COHO	0	50	43.420	2.800	0.396	5.600	7.840	42.624	44.216	38	50
LOGG	CARN	76	1408	FENC	TR	COHO	0	54	44.056	2.716	0.370	5.431	7.374	43.316	44.795	37	50
LOGG	CARN	76	2005	2	PS	COHO	0	111	39.910	2.287	0.217	4.573	5.228	39.480	40.340	34	49
LOGG	CARN	76	2005	2	PS	COHO	1	32	65.406	6.544	1.157	13.089	42.830	63.058	67.755	51	78
LOGG	CARN	76	2005	2	PS	COHO	2	2	84.500	6.364	4.500	12.728	40.500	27.305	141.695	80	89
LOGG	CARN	76	1905	3	PS	COHO	0	113	39.858	1.875	0.176	3.750	3.515	39.509	40.208	36	46
LOGG	CARN	76	1905	3	PS	COHO	1	13	61.462	5.925	1.643	11.849	35.103	57.879	65.044	56	75
LOGG	CARN	76	1905	4	PS	COHO	0	113	39.690	2.101	0.198	4.201	4.412	39.299	40.082	36	49
LOGG	CARN	76	1905	4	PS	COHO	1	23	60.522	4.273	0.891	8.547	18.261	58.677	62.366	55	72
LOGG	CARN	76	1905	4	PS	COHO	2	1	80.000								
LOGG	CARN	76	1905	5	PS	COHO	0	105	40.038	1.467	0.143	2.934	2.152	39.755	40.322	37	45
LOGG	CARN	76	1905	5	PS	COHO	1	21	63.286	6.886	1.503	13.772	47.414	60.145	66.426	53	75
LOGG	CARN	76	1805	6	PS	COHO	0	98	40.214	1.212	0.122	2.424	1.469	39.972	40.457	38	44
LOGG	CARN	76	1805	6	PS	COHO	1	10	62.400	4.248	1.343	8.496	18.044	59.364	65.436	54	68
LOGG	CARN	76	1805	6	PS	COHO	2	1	86.000								
LOGG	CARN	76	1805	8	PS	COHO	0	109	39.872	1.886	0.181	3.772	3.557	39.514	40.229	32	44
LOGG	CARN	76	1805	8	PS	COHO	1	5	59.800	7.085	3.169	14.170	50.200	50.991	68.609	54	72
LOGG	CARN	76	1905	TOTL	PS	COHO	1	103	62.825	6.159	0.607	12.317	37.930	61.624	64.027	51	78
LOGG	CARN	76	1905	TOTL	PS	COHO	2	4	83.750	4.500	2.250	9.000	20.250	76.595	90.905	80	89
LOGG	CARN	76	2106	2	PS	COHO	0	121	42.636	3.109	0.283	6.218	9.667	42.077	43.196	34	51
LOGG	CARN	76	1507	2	SPS	COHO	0	185	46.854	4.619	0.340	9.237	21.332	46.182	47.526	37	59
LOGG	CARN	76	1507	2	SPS	COHO	1	36	72.833	6.980	1.163	13.959	48.714	70.472	75.195	61	91
LOGG	CARN	76	1507	3	SPS	COHO	0	202	45.490	4.355	0.306	8.710	18.968	44.883	46.097	36	58
LOGG	CARN	76	1507	3	SPS	COHO	1	34	69.618	6.629	1.137	13.257	43.940	67.310	71.925	60	85
LOGG	CARN	76	1407	4	SPS	COHO	0	249	44.345	4.405	0.279	8.810	19.404	43.793	44.898	36	59
LOGG	CARN	76	1407	4	SPS	COHO	1	6	70.833	4.622	1.887	9.245	21.367	65.984	75.683	64	77
LOGG	CARN	76	1407	5	SPS	COHO	0	171	42.000	3.850	0.294	7.700	14.824	41.417	42.583	36	56
LOGG	CARN	76	1407	5	SPS	COHO	1	18	68.222	5.857	1.380	11.713	34.301	65.310	71.135	60	82
LOGG	CARN	76	1307	6	SPS	COHO	0	114	44.658	3.842	0.360	7.683	14.758	43.945	45.370	36	56
LOGG	CARN	76	1307	6	SPS	COHO	1	24	70.375	6.233	1.272	12.466	38.853	67.741	73.009	60	86
LOGG	CARN	76	1307	8	SPS	COHO	0	162	43.000	4.684	0.368	9.368	21.938	42.271	43.729	35	58
LOGG	CARN	76	1307	8	SPS	COHO	1	5	76.400	6.348	2.839	12.696	40.300	68.508	84.292	69	86
LOGG	CARN	76	1407	TOTL	SPS	COHO	1	121	70.868	6.689	0.608	13.379	44.749	69.664	72.072	60	91
LOGG	CARN	76	1608	2	PS	COHO	0	72	48.403	4.707	0.555	9.415	22.159	47.299	49.507	40	59

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	76	2009	2	SPS	COHO	0	217	52.659	6.287	0.427	12.573	39.522	51.814	53.504	40	68
LOGG	CARN	76	2009	2	SPS	COHO	1	32	78.531	8.424	1.489	16.848	70.967	75.508	81.554	69	104
LOGG	CARN	76	2009	2	SPS	COHO	1	155	50.071	5.407	0.434	10.814	29.235	49.211	50.931	39	62
LOGG	CARN	76	2109	3	SPS	COHO	0	155	74.308	6.881	1.349	13.761	47.342	71.528	77.087	64	91
LOGG	CARN	76	2109	3	SPS	COHO	1	26	74.308	6.881	1.349	13.761	47.342	71.528	77.087	64	91
LOGG	CARN	76	2109	4	SPS	COHO	0	209	47.478	5.893	0.408	11.787	34.732	46.671	48.286	36	63
LOGG	CARN	76	2109	4	SPS	COHO	1	20	73.150	9.354	2.092	18.709	87.503	68.778	77.522	64	99
LOGG	CARN	76	2109	4	SPS	COHO	1	178	46.017	6.610	0.495	13.220	43.689	45.036	46.998	35	64
LOGG	CARN	76	2209	5	SPS	COHO	0	17	74.412	7.442	1.805	14.884	55.382	70.585	78.238	64	90
LOGG	CARN	76	2209	5	SPS	COHO	1	17	74.412	7.442	1.805	14.884	55.382	70.585	78.238	64	90
LOGG	CARN	76	2309	6	SPS	COHO	0	150	49.773	5.206	0.425	10.412	27.103	48.932	50.615	42	63
LOGG	CARN	76	2309	6	SPS	COHO	1	22	73.591	5.820	1.241	11.640	33.872	71.010	76.172	65	88
LOGG	CARN	76	2309	8	SPS	COHO	0	124	49.960	5.717	0.513	11.435	32.689	48.943	50.976	38	65
LOGG	CARN	76	2309	8	SPS	COHO	1	10	75.300	9.007	2.848	18.014	81.122	68.863	81.737	66	95
LOGG	CARN	76	2209	TOTL	SPS	COHO	1	125	74.992	7.513	0.672	15.026	56.443	73.661	76.323	64	99
LOGG	CARN	76	1710	2	PS	COHO	0	70	53.129	6.134	0.733	12.267	37.621	51.670	54.587	42	70
LOGG	CARN	76	1710	4	PS	COHO	0	33	48.121	6.528	1.136	13.055	42.610	45.814	50.428	37	66
LOGG	CARN	76	1710	8	PS	COHO	0	49	49.143	4.822	0.689	9.644	23.250	47.758	50.527	39	63
LOGG	CARN	76	1710	248	PS	COHO	1	16	81.938	8.683	2.171	17.366	75.396	77.314	86.561	72	103
LOGG	CARN	76	1905	TOTL	PS	RBT	1	68	59.221	6.103	0.740	12.206	37.249	57.748	60.693	46	74
LOGG	CARN	76	1905	TOTL	PS	RBT	2	4	83.500	5.196	2.598	10.392	27.000	75.238	91.762	80	91
LOGG	CARN	76	1507	2	SPS	RBT	0	118	33.610	1.710	0.157	3.420	2.924	33.299	33.922	31	38
LOGG	CARN	76	1507	2	SPS	RBT	1	7	78.571	4.541	1.716	9.082	20.619	74.367	82.776	72	86
LOGG	CARN	76	1507	2	SPS	RBT	2	2	112.000	16.971	12.000	33.941	288.000	-40.520	264.520	100	124
LOGG	CARN	76	1507	3	SPS	RBT	0	98	37.765	1.849	0.187	3.698	3.419	37.395	38.135	33	43
LOGG	CARN	76	1507	3	SPS	RBT	1	3	88.667	2.517	1.453	5.033	6.333	82.419	94.914	86	91
LOGG	CARN	76	1507	3	SPS	RBT	2	2	106.000	5.657	4.000	11.314	32.000	55.160	156.840	102	110
LOGG	CARN	76	1507	3	SPS	RBT	3	1	135.000								
LOGG	CARN	76	1407	4	SPS	RBT	0	30	34.000	2.435	0.445	4.871	5.931	33.093	34.907	27	38
LOGG	CARN	76	1407	4	SPS	RBT	1	12	77.000	6.325	1.826	12.649	40.000	72.983	81.017	69	88
LOGG	CARN	76	1407	5	SPS	RBT	0	127	33.110	1.311	0.116	2.621	1.718	32.880	33.341	30	36
LOGG	CARN	76	1407	5	SPS	RBT	1	6	73.833	1.941	0.792	3.882	3.767	71.797	75.870	71	76
LOGG	CARN	76	1307	6	SPS	RBT	1	16	78.188	7.808	1.952	15.616	60.963	74.030	82.345	68	90
LOGG	CARN	76	1307	6	SPS	RBT	2	1	112.000								
LOGG	CARN	76	1307	8	SPS	RBT	1	8	72.500	4.721	1.669	9.442	22.286	68.561	76.439	66	79
LOGG	CARN	76	1307	8	SPS	RBT	2	1	91.000								
LOGG	CARN	76	1407	TOTL	SPS	RBT	1	51	76.706	6.388	0.895	12.777	40.812	74.908	78.504	66	90
LOGG	CARN	76	1407	TOTL	SPS	RBT	2	6	106.500	11.415	4.660	22.830	130.300	94.524	118.476	91	124
LOGG	CARN	76	1407	TOTL	SPS	RBT	3	1	135.000								
LOGG	CARN	76	1608	2	PS	RBT	0	49	40.592	3.741	0.534	7.482	13.997	39.518	41.666	34	54
LOGG	CARN	76	2009	2	SPS	RBT	0	82	43.902	3.974	0.439	7.948	15.793	43.029	44.776	34	57
LOGG	CARN	76	2009	2	SPS	RBT	1	1	93.000								
LOGG	CARN	76	2009	2	SPS	RBT	2	1	142.000								
LOGG	CARN	76	2109	3	SPS	RBT	0	31	53.355	4.340	0.780	8.680	18.837	51.765	54.945	42	65
LOGG	CARN	76	2109	3	SPS	RBT	1	1	99.000								
LOGG	CARN	76	2109	4	SPS	RBT	0	51	48.157	6.476	0.907	12.951	41.935	46.334	49.979	35	65
LOGG	CARN	76	2109	4	SPS	RBT	1	4	82.750	6.994	3.497	13.988	48.917	71.629	93.871	76	92
LOGG	CARN	76	2209	5	SPS	RBT	0	78	44.308	4.713	0.534	9.427	22.216	43.246	45.370	36	60
LOGG	CARN	76	2209	5	SPS	RBT	1	2	81.500	6.364	4.500	12.728	40.500	24.305	138.695	77	86
LOGG	CARN	76	2209	5	SPS	RBT	2	1	129.000								
LOGG	CARN	76	2309	6	SPS	RBT	0	2	43.000	16.971	12.000	33.941	288.000	-109.520	195.520	31	55
LOGG	CARN	76	2309	6	SPS	RBT	1	19	84.053	8.155	1.871	16.309	66.497	80.124	87.981	69	96
LOGG	CARN	76	2309	6	SPS	RBT	2	3	106.000	8.000	4.619	16.000	64.000	86.139	125.861	98	114

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	76	2309	8	SPS	RBT	0	11	53.182	5.964	1.798	11.927	35.564	49.172	57.192	39	58
LOGG	CARN	76	2309	8	SPS	RBT	1	8	81.375	3.889	1.375	7.778	15.125	78.130	84.620	77	88
LOGG	CARN	76	2209	TOTL	SPS	RBT	1	34	83.382	7.032	1.206	14.065	49.455	80.934	85.831	69	96
LOGG	CARN	76	2209	TOTL	SPS	RBT	2	6	114.667	17.614	7.191	35.229	310.267	96.186	133.148	98	142
LOGG	CARN	76	1407	TOTL	SPS	CT	1	5	74.200	4.658	2.083	9.317	21.700	68.409	79.991	69	81
LOGG	CARN	76	1407	TOTL	SPS	CT	2	4	103.750	8.617	4.308	17.234	74.250	90.049	117.451	95	113
LOGG	CARN	76	1407	TOTL	SPS	CT	3	1	128.000								
LOGG	CARN	76	1407	TOTL	SPS	CT	2	3	139.667	4.041	2.333	8.083	16.333	129.633	149.700	136	144
LOGG	CARN	76	1407	TOTL	SPS	CT	3	3	193.000	42.755	24.685	85.510	1828.000	86.856	299.144	145	227
LOGG	CARN	76	2209	TOTL	SPS	CT	0	1	77.000								
LOGG	CARN	76	2209	TOTL	SPS	CT	1	2	103.500	9.192	6.500	18.385	84.500	20.885	186.115	97	110
LOGG	CARN	76	2209	TOTL	SPS	CT	2	8	131.375	15.784	5.580	31.567	249.125	118.205	144.545	118	163
LOGG	CARN	76	2209	TOTL	SPS	CT	3	2	185.500	21.920	15.500	43.841	480.500	-11.505	382.505	170	201
LOGG	CARN	76	2209	TOTL	SPS	CT	4	1	201.000								
LOGG	CARN	76	2005	2	PS	ALUT	-	79	61.278	8.669	0.975	17.338	75.152	59.338	63.219	43	92
LOGG	CARN	76	1905	TOTL	PS	ALUT	-	108	64.815	11.086	1.067	22.172	122.900	62.703	66.927	43	92
LOGG	CARN	76	1507	2	SPS	ALUT	-	118	66.814	10.382	0.956	20.765	107.794	64.921	68.706	43	96
LOGG	CARN	76	1507	3	SPS	ALUT	-	13	86.231	7.282	2.020	14.564	53.026	81.828	90.634	66	95
LOGG	CARN	76	1407	4	SPS	ALUT	-	9	81.556	17.133	5.711	34.265	293.528	68.363	94.748	61	110
LOGG	CARN	76	1407	5	SPS	ALUT	-	12	92.333	10.482	3.026	20.965	109.879	85.676	98.990	71	108
LOGG	CARN	76	1307	6	SPS	ALUT	-	9	91.444	4.640	1.547	9.280	21.528	87.872	95.017	83	97
LOGG	CARN	76	1307	8	SPS	ALUT	-	23	86.870	10.805	2.253	21.611	116.755	82.206	91.533	68	108
LOGG	CARN	76	1407	TOTL	SPS	ALUT	-	147	77.687	11.678	0.963	23.355	136.367	75.780	79.594	61	108
LOGG	CARN	76	2009	2	SPS	ALUT	-	87	68.483	9.842	1.055	19.683	96.857	66.383	70.582	47	97
LOGG	CARN	76	2109	3	SPS	ALUT	-	7	87.857	10.156	3.839	20.312	103.143	78.453	97.262	74	98
LOGG	CARN	76	2109	4	SPS	ALUT	-	7	87.429	12.191	4.608	24.382	148.619	76.140	98.718	70	103
LOGG	CARN	76	2209	5	SPS	ALUT	-	5	93.200	13.480	6.028	26.959	181.700	76.441	109.959	74	109
LOGG	CARN	76	2309	6	SPS	ALUT	-	11	89.727	9.572	2.886	19.143	91.618	83.292	96.163	72	109
LOGG	CARN	76	2309	8	SPS	ALUT	-	12	85.500	5.214	1.505	10.427	27.182	82.189	88.811	76	93
LOGG	CARN	76	2209	TOTL	SPS	ALUT	-	129	74.969	13.483	1.187	26.966	181.796	72.618	77.320	47	109
LOGG	CARN	76	1507	2	SPS	ASPR	-	11	89.727	13.387	4.036	26.774	179.218	80.726	98.728	70	107
LOGG	CARN	76	2009	2	SPS	ASPR	-	12	102.500	16.779	4.844	33.559	281.545	91.844	113.156	83	138
LOGG	CARN	76	2206	UPER	S	CT	1	10	59.300	8.932	2.825	17.865	79.789	52.916	65.684	46	75
LOGG	CARN	76	2206	UPER	S	CT	2	10	97.600	9.991	3.159	19.982	99.822	90.460	104.740	84	115
LOGG	CARN	76	2206	UPER	S	CT	3	4	127.500	13.699	6.850	27.398	187.667	105.718	149.282	120	148
LOGG	CARN	76	2409	UPER	S	CT	0	39	38.564	4.778	0.765	9.556	22.831	37.019	40.110	29	47
LOGG	CARN	76	2409	UPER	S	CT	1	23	83.957	10.236	2.134	20.472	104.771	79.539	88.375	63	100
LOGG	CARN	76	2409	UPER	S	CT	2	11	116.182	11.089	3.343	22.178	122.964	108.726	123.638	106	144
LOGG	CARN	76	2409	UPER	S	CT	3	2	164.000	18.385	13.000	36.770	338.000	-1.230	329.230	151	177
LOGG	CARN	76	2306	2100	S	CT	0	2	24.000	2.828	2.000	5.657	8.000	-1.420	49.420	22	26
LOGG	CARN	76	2306	2100	S	CT	1	15	72.400	6.390	1.650	12.779	40.829	68.869	75.931	61	84
LOGG	CARN	76	2306	2100	S	CT	2	5	103.800	13.180	5.894	26.359	173.700	87.415	120.186	87	120
LOGG	CARN	76	2209	2100	S	CT	0	26	44.731	5.738	1.125	11.476	32.925	42.413	47.049	33	54
LOGG	CARN	76	2209	2100	S	CT	1	20	86.000	8.379	1.874	16.758	70.211	82.084	89.916	74	100
LOGG	CARN	76	2209	2100	S	CT	2	5	123.600	18.849	8.430	37.699	355.300	100.165	147.035	103	144
LOGG	CARN	76	2306	1600	S	COHO	0	192	41.938	2.866	0.207	5.733	8.216	41.528	42.347	35	52
LOGG	CARN	76	2306	1600	S	COHO	1	34	60.618	9.773	1.676	19.546	95.516	57.215	64.020	50	80
LOGG	CARN	76	3107	1600	PS	COHO	0	74	46.122	4.569	0.531	9.138	20.875	45.065	47.179	39	57
LOGG	CARN	76	3107	1600	PS	COHO	1	13	70.615	7.194	1.995	14.388	51.756	66.266	74.965	60	83
LOGG	CARN	76	2209	1600	SPS	COHO	0	111	48.982	5.951	0.565	11.903	35.418	47.864	50.100	37	64
LOGG	CARN	76	2209	1600	SPS	COHO	1	15	72.333	6.218	1.606	12.437	38.667	68.897	75.769	66	85

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	76	1710	1600	PS	COHO	0	51	48.824	5.757	0.806	11.515	33.148	47.203	50.444	37	69
LOGG	CARN	76	2306	1600	S	CT	1	5	56.000	11.380	5.089	22.760	129.500	41.852	70.148	48	76
LOGG	CARN	76	2209	1600	S	CT	0	7	42.143	11.142	4.211	22.284	124.143	31.825	52.460	28	63
LOGG	CARN	76	2209	1600	S	CT	1	3	84.000	21.656	12.503	43.313	469.000	30.236	137.764	71	109
LOGG	CARN	76	2508	USEL	S	COHO	0	48	50.917	4.176	0.603	8.352	17.440	49.705	52.128	43	60
LOGG	CARN	76	2508	USEL	S	CT	1	3	77.000	3.606	2.082	7.211	13.000	68.049	85.951	74	81
LOGG	CARN	76	2508	USEL	S	CT	2	4	101.000	5.033	2.517	10.066	25.333	92.997	109.003	96	106
LOGG	CARN	76	2508	USEL	S	CT	3	2	157.500	13.435	9.500	26.870	180.500	36.755	278.245	148	167
LOGG	CARN	76	2508	USEL	S	ALUT	-	68	75.882	18.184	2.205	36.367	330.643	71.494	80.270	44	113
LOGG	CARN	76	2408	FRED	SPS	COHO	0	122	52.811	6.391	0.579	12.783	40.848	51.666	53.957	41	72
LOGG	CARN	76	2408	FRED	SPS	COHO	1	2	79.000	1.414	1.000	2.828	2.000	66.290	91.710	78	80
LOGG	CARN	76	2408	FRED	SPS	RBT	0	5	52.800	3.493	1.562	6.986	12.200	48.458	57.142	48	57
LOGG	CARN	76	2408	FRED	SPS	ALUT	-	36	46.889	9.420	1.570	18.839	88.730	43.702	50.076	34	73
LOGG	CARN	76	2408	FRED	SPS	ASPR	-	36	72.972	12.096	2.016	24.192	146.313	68.880	77.065	55	98
LOGG	CARN	76	2408	PACH	SPS	COHO	0	151	50.245	5.550	0.452	11.099	30.800	49.351	51.139	41	66
LOGG	CARN	76	2408	PACH	SPS	COHO	1	19	78.105	8.075	1.853	16.151	65.211	74.215	81.996	67	96
LOGG	CARN	76	2408	PACH	SPS	RBT	0	54	46.185	4.837	0.658	9.675	23.399	44.869	47.502	37	60
LOGG	CARN	76	2408	PACH	SPS	RBT	1	2	80.500	4.950	3.500	9.899	24.500	36.015	124.985	77	84
LOGG	CARN	76	2408	PACH	SPS	CT	1	1	60.000								
LOGG	CARN	76	2408	PACH	SPS	ALUT	-	77	58.286	12.416	1.415	24.832	154.154	55.470	61.101	45	94
LOGG	CARN	76	2408	PACH	SPS	ASPR	-	77	82.299	17.333	1.975	34.667	300.449	78.368	86.230	52	153
LOGG	CARN	76	2608	RITH	S	CT	0	46	47.848	7.925	1.168	15.849	62.799	45.499	50.196	33	61
LOGG	CARN	76	2608	RITH	S	CT	1	21	81.619	9.075	1.980	18.149	82.348	77.480	85.758	67	95
LOGG	CARN	76	2608	RITH	S	CT	2	9	111.667	9.274	3.091	18.547	86.000	104.526	118.807	103	128
LOGG	CARN	76	2608	RITH	S	CT	3	2	139.000	5.657	4.000	11.314	32.000	88.160	189.840	135	143
LOGG	CARN	77	2403	FENC	TR	CHUM	0	57	41.053	1.076	0.143	2.152	1.158	40.768	41.338	38	44
LOGG	CARN	77	0304	FENC	TR	CHUM	0	50	41.180	1.674	0.237	3.349	2.804	40.704	41.656	38	45
LOGG	CARN	77	1404	FENC	TR	CHUM	0	50	42.680	1.168	0.165	2.337	1.365	42.348	43.012	40	45
LOGG	CARN	77	2604	FENC	TR	CHUM	0	40	42.325	1.289	0.204	2.578	1.661	41.913	42.737	38	44
LOGG	CARN	77	0305	FENC	TR	CHUM	0	41	42.976	1.695	0.265	3.391	2.874	42.441	43.510	38	47
LOGG	CARN	77	2403	FENC	TR	COHO	0	49	37.122	0.949	0.136	1.899	0.901	36.850	37.395	35	40
LOGG	CARN	77	0404	FENC	TR	COHO	0	45	36.867	0.694	0.103	1.388	0.482	36.659	37.075	36	38
LOGG	CARN	77	1404	FENC	TR	COHO	0	48	38.167	1.038	0.150	2.077	1.078	37.865	38.468	36	40
LOGG	CARN	77	2604	FENC	TR	COHO	0	51	37.627	1.311	0.184	2.622	1.718	37.258	37.996	34	44
LOGG	CARN	77	0305	FENC	TR	COHO	0	45	38.400	1.321	0.197	2.642	1.745	38.004	38.796	36	43
LOGG	CARN	77	0606	FENC	TR	COHO	0	14	46.000	4.438	1.186	8.875	19.692	43.438	48.562	37	51
LOGG	CARN	77	2503	FENC	TR	COHO	1	15	65.933	5.885	1.520	11.771	34.638	62.681	69.185	60	79
LOGG	CARN	77	2503	FENC	TR	COHO	2	1	82.000								
LOGG	CARN	77	3003	FENC	TR	COHO	1	9	67.111	7.474	2.491	14.948	55.861	61.356	72.866	60	78
LOGG	CARN	77	0604	FENC	TR	COHO	1	77	67.792	5.197	0.592	10.394	27.009	66.614	68.971	60	81
LOGG	CARN	77	0604	FENC	TR	COHO	2	5	88.000	3.742	1.673	7.483	14.000	83.348	92.652	84	94
LOGG	CARN	77	1304	FENC	TR	COHO	1	171	73.825	7.119	0.544	14.239	50.687	72.747	74.903	60	90
LOGG	CARN	77	1304	FENC	TR	COHO	2	54	90.389	12.247	1.667	24.493	149.978	87.056	93.722	73	120
LOGG	CARN	77	2004	FENC	TR	COHO	1	146	73.712	8.535	0.706	17.071	72.855	72.314	75.111	60	97
LOGG	CARN	77	2004	FENC	TR	COHO	2	69	94.406	9.946	1.197	19.892	98.921	92.023	96.789	78	122
LOGG	CARN	77	2704	FENC	TR	COHO	1	187	77.021	9.261	0.677	18.522	85.763	75.680	78.362	60	101
LOGG	CARN	77	2704	FENC	TR	COHO	2	118	97.076	10.922	1.005	21.844	119.285	95.086	99.067	80	125
LOGG	CARN	77	0405	FENC	TR	COHO	1	292	81.192	9.509	0.557	19.019	90.430	80.090	82.294	60	101
LOGG	CARN	77	0405	FENC	TR	COHO	2	351	98.259	9.417	0.503	18.834	88.684	97.264	99.255	80	122
LOGG	CARN	77	1105	FENC	TR	COHO	1	275	81.287	7.584	0.457	15.168	57.519	80.382	82.193	60	96

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S**S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	77	1105	FENC	TR	COHO	2	205	100.244	7.336	0.512	14.671	53.813	99.229	101.258	89	127
LOGG	CARN	77	1805	FENC	TR	COHO	1	178	81.753	6.678	0.501	13.356	44.594	80.762	82.744	60	95
LOGG	CARN	77	1805	FENC	TR	COHO	2	116	96.181	7.335	0.681	14.670	53.802	94.833	97.529	82	117
LOGG	CARN	77	2505	FENC	TR	COHO	1	76	81.342	7.639	0.876	15.279	58.361	79.598	83.086	67	95
LOGG	CARN	77	2505	FENC	TR	COHO	2	49	95.694	8.024	1.146	16.048	64.384	93.390	97.998	82	113
LOGG	CARN	77	0106	FENC	TR	COHO	1	17	79.824	8.538	2.071	17.077	72.904	75.433	84.214	65	94
LOGG	CARN	77	0106	FENC	TR	COHO	2	24	101.958	9.120	1.862	18.240	83.172	98.105	105.812	90	132
LOGG	CARN	77	0806	FENC	TR	COHO	1	4	84.500	4.509	2.255	9.018	20.333	77.330	91.670	79	90
LOGG	CARN	77	1506	FENC	TR	COHO	1	6	73.500	14.265	5.824	28.531	203.500	58.533	88.467	60	89
LOGG	CARN	77	1506	FENC	TR	COHO	2	1	103.000								
LOGG	CARN	77	1905	2	PS	COHO	0	103	44.534	4.535	0.447	9.070	20.565	43.649	45.419	38	59
LOGG	CARN	77	1905	2	PS	COHO	1	11	72.364	6.500	1.960	13.001	42.255	67.993	76.734	65	84
LOGG	CARN	77	1805	3	PS	COHO	0	120	44.492	3.983	0.364	7.966	15.865	43.772	45.212	36	54
LOGG	CARN	77	1805	3	PS	COHO	1	12	71.583	9.080	2.621	18.160	82.447	65.817	77.350	57	90
LOGG	CARN	77	1805	4	PS	COHO	0	144	45.257	3.806	0.317	7.612	14.486	44.629	45.885	37	56
LOGG	CARN	77	1805	4	PS	COHO	1	27	65.963	5.516	1.061	11.031	30.422	63.776	68.150	59	84
LOGG	CARN	77	1705	5	PS	COHO	0	183	42.973	4.427	0.327	8.854	19.598	42.325	43.621	34	53
LOGG	CARN	77	1705	5	PS	COHO	1	27	73.000	7.565	1.456	15.130	57.231	70.001	75.999	59	89
LOGG	CARN	77	1705	6	PS	COHO	0	128	40.023	3.433	0.303	6.866	11.787	39.423	40.624	35	48
LOGG	CARN	77	1705	6	PS	COHO	1	9	60.444	5.548	1.849	11.096	30.778	56.173	64.716	54	71
LOGG	CARN	77	1605	8	PS	COHO	0	183	38.098	3.989	0.295	7.978	15.913	37.514	38.682	34	53
LOGG	CARN	77	1605	8	PS	COHO	1	8	65.500	9.842	3.480	19.683	96.857	57.288	73.712	57	87
LOGG	CARN	77	1805	TOTL	PS	COHO	1	94	68.883	8.148	0.840	16.295	66.384	67.219	70.547	54	90
LOGG	CARN	77	1306	2	PS	COHO	0	82	50.073	4.444	0.491	8.888	19.748	49.097	51.050	40	61
LOGG	CARN	77	1306	2	PS	COHO	1	2	71.500	6.364	4.500	12.728	40.500	14.305	128.695	67	76
LOGG	CARN	77	2107	2	SPS	COHO	0	133	59.632	5.181	0.449	10.362	26.841	58.742	60.521	44	70
LOGG	CARN	77	2107	2	SPS	COHO	1	14	77.000	5.533	1.479	11.066	30.615	73.806	80.194	70	87
LOGG	CARN	77	2107	3	SPS	COHO	0	126	58.667	4.067	0.362	8.135	16.544	57.949	59.384	46	67
LOGG	CARN	77	2107	3	SPS	COHO	1	22	73.364	5.827	1.242	11.654	33.957	70.780	75.948	67	85
LOGG	CARN	77	2007	4	SPS	COHO	0	204	56.368	4.555	0.319	9.110	20.746	55.736	56.999	46	69
LOGG	CARN	77	2007	4	SPS	COHO	1	29	76.345	5.589	1.038	11.177	31.234	74.217	78.472	69	88
LOGG	CARN	77	2007	5	SPS	COHO	0	504	53.964	6.398	0.285	12.796	40.937	53.400	54.529	41	70
LOGG	CARN	77	2007	5	SPS	COHO	1	34	77.676	6.839	1.173	13.678	46.771	75.296	80.057	70	92
LOGG	CARN	77	1907	6	SPS	COHO	0	170	49.200	4.851	0.372	9.702	23.534	48.463	49.937	35	66
LOGG	CARN	77	1907	6	SPS	COHO	1	15	71.267	5.063	1.307	10.127	25.638	68.469	74.064	65	82
LOGG	CARN	77	1907	8	SPS	COHO	0	240	49.346	5.509	0.356	11.017	30.344	48.642	50.050	36	65
LOGG	CARN	77	1907	8	SPS	COHO	1	18	73.611	5.359	1.263	10.719	28.722	70.946	76.276	63	80
LOGG	CARN	77	2007	TOTL	SPS	COHO	1	132	75.311	6.189	0.539	12.379	38.307	74.244	76.377	63	92
LOGG	CARN	77	1808	2	PS	COHO	0	68	63.147	4.780	0.580	9.559	22.844	61.994	64.300	53	71
LOGG	CARN	77	1808	2	PS	COHO	1	11	77.545	3.751	1.131	7.503	14.073	75.023	80.068	73	84
LOGG	CARN	77	2909	2	SPS	COHO	0	96	66.219	4.356	0.445	8.712	18.973	65.339	67.099	52	73
LOGG	CARN	77	2909	2	SPS	COHO	1	40	81.650	6.878	1.088	13.756	47.310	79.453	83.847	74	98
LOGG	CARN	77	2909	3	SPS	COHO	0	91	65.571	3.922	0.411	7.844	15.381	64.753	66.390	54	73
LOGG	CARN	77	2909	3	SPS	COHO	1	18	80.389	5.553	1.309	11.107	30.840	77.627	83.151	73	92
LOGG	CARN	77	2809	4	SPS	COHO	0	139	61.799	4.792	0.406	9.583	22.959	60.994	62.603	49	73
LOGG	CARN	77	2809	4	SPS	COHO	1	32	78.969	5.403	0.955	10.806	29.193	77.030	80.908	71	93
LOGG	CARN	77	2609	5	SPS	COHO	0	381	59.459	6.220	0.319	12.440	38.686	58.828	60.090	46	78
LOGG	CARN	77	2609	5	SPS	COHO	1	15	80.467	3.378	0.872	6.756	11.410	78.600	82.333	76	89
LOGG	CARN	77	2709	6	SPS	COHO	0	119	56.496	5.143	0.472	10.287	26.455	55.562	57.429	47	70
LOGG	CARN	77	2709	6	SPS	COHO	1	19	78.421	6.067	1.392	12.135	36.813	75.498	81.344	71	90
LOGG	CARN	77	2709	8	SPS	COHO	0	118	58.161	5.235	0.482	10.469	27.401	57.207	59.115	45	71

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	77	2709	8	SPS	COHO	1	15	79.733	5.365	1.385	10.730	28.781	76.769	82.698	71	87
LOGG	CARN	77	2809	TOTL	SPS	COHO	1	138	80.159	5.802	0.494	11.605	33.668	79.181	81.137	71	98
LOGG	CARN	77	2010	2	PS	COHO	0	58	69.172	4.754	0.624	9.508	22.601	67.924	70.421	60	78
LOGG	CARN	77	2010	2	PS	COHO	1	7	84.714	5.529	2.090	11.058	30.571	79.594	89.834	80	96
LOGG	CARN	77	2010	3	PS	COHO	0	61	64.754	4.922	0.630	9.843	24.222	63.494	66.014	52	76
LOGG	CARN	77	2010	3	PS	COHO	1	4	82.250	6.551	3.276	13.102	42.917	71.834	92.666	78	92
LOGG	CARN	77	2010	4	PS	COHO	0	45	62.244	4.488	0.669	8.976	20.143	60.900	63.589	54	75
LOGG	CARN	77	2010	4	PS	COHO	1	3	87.333	2.887	1.667	5.774	8.333	80.167	94.500	84	89
LOGG	CARN	77	2010	5	PS	COHO	0	150	61.273	6.258	0.511	12.517	39.166	60.262	62.285	48	80
LOGG	CARN	77	2010	5	PS	COHO	1	3	88.333	6.110	3.528	12.220	37.333	73.164	103.502	83	95
LOGG	CARN	77	2110	6	PS	COHO	0	60	56.667	4.305	0.556	8.610	18.531	55.555	57.778	51	71
LOGG	CARN	77	2110	6	PS	COHO	1	1	91.000								
LOGG	CARN	77	2110	8	PS	COHO	0	45	59.800	5.599	0.835	11.197	31.345	58.122	61.478	51	72
LOGG	CARN	77	2110	8	PS	COHO	1	3	84.333	2.082	1.202	4.163	4.333	79.165	89.501	82	86
LOGG	CARN	77	2010	TOTL	PS	COHO	1	21	85.381	5.133	1.120	10.266	26.348	83.040	87.722	78	96
LOGG	CARN	77	1805	TOTL	PS	RBT	1	26	68.038	5.546	1.088	11.092	30.758	65.798	70.279	57	80
LOGG	CARN	77	1805	TOTL	PS	RBT	2	5	97.200	10.640	4.758	21.279	113.200	83.972	110.428	85	112
LOGG	CARN	77	2007	TOTL	SPS	RBT	0	25	44.680	7.592	1.518	15.185	57.643	41.552	47.808	27	56
LOGG	CARN	77	2007	TOTL	SPS	RBT	1	22	85.045	5.964	1.272	11.928	35.569	82.401	87.690	76	95
LOGG	CARN	77	2809	TOTL	SPS	RBT	2	13	102.308	9.464	2.625	18.928	89.564	96.586	108.030	89	121
LOGG	CARN	77	2809	TOTL	SPS	RBT	0	32	59.875	6.015	1.063	12.030	36.177	57.717	62.033	48	71
LOGG	CARN	77	2809	TOTL	SPS	RBT	1	16	94.875	8.302	2.075	16.603	68.917	90.454	99.296	78	109
LOGG	CARN	77	2809	TOTL	SPS	RBT	2	16	108.438	9.194	2.298	18.388	84.529	103.542	113.333	96	128
LOGG	CARN	77	1805	TOTL	SPS	CT	1	3	73.333	8.145	4.702	16.289	66.333	53.114	93.553	64	79
LOGG	CARN	77	1805	TOTL	SPS	CT	2	1	95.000								
LOGG	CARN	77	2007	TOTL	SPS	CT	1	12	78.083	6.156	1.777	12.313	37.902	74.173	81.993	67	87
LOGG	CARN	77	2007	TOTL	SPS	CT	2	1	88.000								
LOGG	CARN	77	2007	TOTL	SPS	CT	1	2	92.000	0.000	0.000	0.000	0.000	92.000	92.000	92	92
LOGG	CARN	77	2007	TOTL	SPS	CT	2	8	114.000	12.340	4.363	24.681	152.286	103.703	124.297	97	129
LOGG	CARN	77	2007	TOTL	SPS	CT	3	2	147.500	19.092	13.500	38.184	364.500	-24.085	319.085	134	161
LOGG	CARN	77	2007	TOTL	SPS	CT	4	1	204.000								
LOGG	CARN	77	2809	TOTL	SPS	CT	0	4	57.250	4.856	2.428	9.713	23.583	49.529	64.971	51	62
LOGG	CARN	77	2809	TOTL	SPS	CT	1	5	87.200	5.357	2.396	10.714	28.700	80.540	93.860	81	92
LOGG	CARN	77	2809	TOTL	SPS	CT	2	1	93.000								
LOGG	CARN	77	2809	TOTL	SPS	CT	1	2	99.500	2.121	1.500	4.243	4.500	80.435	118.565	98	101
LOGG	CARN	77	2809	TOTL	SPS	CT	2	6	111.500	9.628	3.931	19.256	92.700	101.398	121.602	102	124
LOGG	CARN	77	2809	TOTL	SPS	CT	3	1	132.000								
LOGG	CARN	77	2809	TOTL	SPS	CT	2	1	136.000								
LOGG	CARN	77	2809	TOTL	SPS	CT	3	4	154.500	15.264	7.632	30.529	233.000	130.230	178.770	137	173
LOGG	CARN	77	2809	TOTL	SPS	CT	4	3	205.667	5.033	2.906	10.066	25.333	193.171	218.162	201	211
LOGG	CARN	77	1905	2	PS	ALUT	-	33	61.636	9.034	1.573	18.068	81.614	58.444	64.829	41	81
LOGG	CARN	77	1805	TOTL	PS	ALUT	-	52	69.615	14.382	1.994	28.763	206.830	65.627	73.604	41	104
LOGG	CARN	77	1306	2	PS	ALUT	-	48	64.083	9.227	1.332	18.454	85.142	61.406	66.760	44	84
LOGG	CARN	77	2107	2	SPS	ALUT	-	118	69.475	14.680	1.351	29.361	215.516	66.799	72.150	41	119
LOGG	CARN	77	2007	TOTL	SPS	ALUT	-	170	76.412	16.901	1.296	33.802	285.652	73.845	78.978	41	119
LOGG	CARN	77	2909	2	SPS	ALUT	-	84	71.917	11.567	1.262	23.133	133.788	69.405	74.428	52	110
LOGG	CARN	77	2809	TOTL	SPS	ALUT	-	139	79.957	14.261	1.210	28.523	203.389	77.562	82.352	52	110
LOGG	CARN	77	1006	UPER	S	CT	1	21	61.667	7.742	1.689	15.483	59.933	58.136	65.197	46	73
LOGG	CARN	77	1006	UPER	S	CT	2	13	94.538	8.027	2.226	16.054	64.436	89.685	99.392	84	112
LOGG	CARN	77	2809	UPER	S	CT	3	1	163.000								
LOGG	CARN	77	2809	UPER	S	CT	0	36	43.528	4.772	0.795	9.544	22.771	41.913	45.142	33	54

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	77	2809	UPER	S	CT	1	28	84.964	11.831	2.236	23.661	139.962	80.381	89.548	65	103
LOGG	CARN	77	2809	UPER	S	CT	2	4	111.750	3.775	1.887	7.550	14.250	105.748	117.752	109	117
LOGG	CARN	77	2809	UPER	S	CT	3	1	128.000								
LOGG	CARN	77	0806	2100	S	CT	1	25	67.680	9.232	1.846	18.464	85.227	63.876	71.484	55	85
LOGG	CARN	77	0806	2100	S	CT	2	3	111.333	8.622	4.978	17.243	74.333	89.929	132.738	102	119
LOGG	CARN	77	0806	2100	S	CT	3	1	150.000								
LOGG	CARN	77	2709	2100	S	CT	0	14	46.214	6.204	1.658	12.408	38.489	42.633	49.796	35	55
LOGG	CARN	77	2709	2100	S	CT	1	27	82.519	8.045	1.548	16.090	64.721	79.329	85.708	64	96
LOGG	CARN	77	2709	2100	S	CT	2	3	114.000	6.083	3.512	12.166	37.000	98.899	129.101	107	118
LOGG	CARN	77	2709	2100	S	CT	3	2	132.000	4.243	3.000	8.485	18.000	93.870	170.130	129	135
LOGG	CARN	77	2007	1600	S	COHO	0	20	57.750	5.990	1.339	11.980	35.882	54.951	60.549	46	70
LOGG	CARN	77	2007	1600	S	COHO	1	4	75.750	2.217	1.109	4.435	4.917	72.224	79.276	74	79
LOGG	CARN	77	2908	USEL	S	COHO	0	32	63.688	5.450	0.963	10.901	29.706	61.732	65.643	54	73
LOGG	CARN	77	2908	USEL	S	CT	0	4	41.750	2.986	1.493	5.972	8.917	37.002	46.498	39	46
LOGG	CARN	77	2908	USEL	S	CT	1	12	79.917	6.775	1.956	13.550	45.902	75.614	84.219	71	91
LOGG	CARN	77	2908	USEL	S	CT	2	4	116.000	12.936	6.468	25.871	167.333	95.432	136.568	100	127
LOGG	CARN	77	2908	USEL	S	CT	3	1	161.000								
LOGG	CARN	77	2908	USEL	S	ALUT	-	60	69.950	13.013	1.680	26.026	169.336	66.590	73.310	47	102
LOGG	CARN	77	3008	FRED	SPS	COHO	0	125	64.640	6.973	0.624	13.946	48.619	63.405	65.875	43	83
LOGG	CARN	77	3008	FRED	SPS	RBT	0	14	52.286	7.290	1.948	14.580	53.143	48.077	56.494	38	63
LOGG	CARN	77	3008	FRED	SPS	RBT	2	1	99.000								
LOGG	CARN	77	3008	FRED	SPS	COTD	-	164	45.726	18.721	1.462	37.442	350.470	42.831	48.620	29	101
LOGG	CARN	77	3008	PACH	SPS	COHO	0	138	62.051	5.386	0.459	10.773	29.012	61.143	62.959	49	74
LOGG	CARN	77	3008	PACH	SPS	COHO	1	19	83.474	7.329	1.681	14.657	53.708	79.943	87.004	75	98
LOGG	CARN	77	3008	PACH	SPS	RBT	0	59	52.763	3.984	0.519	7.968	15.874	51.725	53.800	44	66
LOGG	CARN	77	3008	PACH	SPS	RBT	1	3	90.000	8.185	4.726	16.371	67.000	69.679	110.321	83	99
LOGG	CARN	77	3008	PACH	SPS	CT	0	1	55.000								
LOGG	CARN	77	3008	PACH	SPS	CT	2	1	114.000								
LOGG	CARN	77	3008	PACH	SPS	ALUT	-	94	61.340	10.496	1.083	20.992	110.162	59.197	63.484	45	84
LOGG	CARN	77	3008	PACH	SPS	ASPR	-	54	86.204	18.691	2.543	37.381	349.335	81.117	91.291	48	157
LOGG	CARN	77	3108	RITH	S	CT	0	40	54.950	9.408	1.488	18.816	88.510	51.945	57.955	36	73
LOGG	CARN	77	3108	RITH	S	CT	1	9	96.222	7.934	2.645	15.868	62.944	90.113	102.331	83	107
LOGG	CARN	77	3108	RITH	S	CT	2	8	121.500	7.838	2.771	15.675	61.429	114.960	128.040	110	134
LOGG	CARN	77	3108	RITH	S	CT	3	1	152.000								
LOGG	CARN	78	2403	FENC	TR	CHUM	0	76	42.145	1.937	0.222	3.874	3.752	41.703	42.587	38	45
LOGG	CARN	78	0104	FENC	TR	CHUM	0	50	40.500	0.886	0.125	1.773	0.786	40.248	40.752	39	43
LOGG	CARN	78	1004	FENC	TR	CHUM	0	50	41.960	1.068	0.151	2.137	1.141	41.656	42.264	40	44
LOGG	CARN	78	2004	FENC	TR	CHUM	0	33	41.909	0.914	0.159	1.828	0.835	41.586	42.232	40	44
LOGG	CARN	78	3004	FENC	TR	CHUM	0	50	42.540	0.788	0.111	1.576	0.621	42.316	42.764	41	44
LOGG	CARN	78	2403	FENC	TR	COHO	0	88	39.102	0.959	0.102	1.919	0.920	38.899	39.306	37	44
LOGG	CARN	78	0104	FENC	TR	COHO	0	69	36.812	1.102	0.133	2.204	1.214	36.548	37.076	34	39
LOGG	CARN	78	1004	FENC	TR	COHO	0	50	35.620	1.123	0.159	2.246	1.261	35.301	35.939	33	39
LOGG	CARN	78	2004	FENC	TR	COHO	0	18	36.333	0.970	0.229	1.940	0.941	35.851	36.816	34	38
LOGG	CARN	78	3004	FENC	TR	COHO	0	66	39.015	1.246	0.153	2.493	1.554	38.710	39.320	35	42
LOGG	CARN	78	1105	FENC	TR	COHO	0	71	38.676	1.381	0.164	2.762	1.908	38.350	39.002	37	46
LOGG	CARN	78	2905	FENC	TR	COHO	0	51	40.353	2.985	0.418	5.971	8.913	39.513	41.193	34	49
LOGG	CARN	78	1006	FENC	TR	COHO	0	69	42.275	3.429	0.413	6.859	11.761	41.454	43.097	34	52
LOGG	CARN	78	1306	FENC	TR	COHO	0	117	42.308	3.302	0.305	6.604	10.905	41.703	42.912	35	52
LOGG	CARN	78	2406	FENC	TR	COHO	0	30	46.767	2.849	0.520	5.698	8.116	45.706	47.828	42	53
LOGG	CARN	78	1508	FENC	TR	COHO	0	170	48.506	3.427	0.263	6.853	11.743	47.986	49.026	40	58

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	78	2203	FENC	TR	COHO	1	127	74.559	6.389	0.567	12.778	40.820	73.437	75.682	61	86
LOGG	CARN	78	2203	FENC	TR	COHO	2	36	85.556	8.984	1.497	17.968	80.711	82.516	88.595	70	117
LOGG	CARN	78	2903	FENC	TR	COHO	1	289	72.993	6.377	0.375	12.754	40.667	72.250	73.736	60	86
LOGG	CARN	78	2903	FENC	TR	COHO	2	66	86.000	8.624	1.062	17.248	74.369	83.888	88.112	70	107
LOGG	CARN	78	0504	FENC	TR	COHO	1	285	73.839	7.096	0.420	14.192	50.354	73.006	74.671	60	95
LOGG	CARN	78	0504	FENC	TR	COHO	2	63	91.825	9.126	1.150	18.251	83.275	89.537	94.113	77	111
LOGG	CARN	78	1204	FENC	TR	COHO	1	87	75.552	8.124	0.871	16.247	65.994	73.819	77.285	61	96
LOGG	CARN	78	1204	FENC	TR	COHO	2	27	94.185	7.631	1.469	15.262	58.234	91.160	97.211	80	108
LOGG	CARN	78	1904	FENC	TR	COHO	1	351	83.949	9.769	0.521	19.538	95.437	82.916	84.981	60	105
LOGG	CARN	78	1904	FENC	TR	COHO	2	70	104.929	8.155	0.975	16.310	66.502	102.989	106.868	91	130
LOGG	CARN	78	2604	FENC	TR	COHO	1	463	85.739	8.962	0.416	17.924	80.315	84.914	86.563	62	103
LOGG	CARN	78	2604	FENC	TR	COHO	2	111	104.613	6.977	0.662	13.954	48.676	103.301	105.924	92	125
LOGG	CARN	78	0305	FENC	TR	COHO	1	617	86.254	8.382	0.337	16.764	70.258	85.586	86.923	60	103
LOGG	CARN	78	0305	FENC	TR	COHO	2	123	105.049	7.505	0.677	15.010	56.325	103.709	106.389	92	128
LOGG	CARN	78	1005	FENC	TR	COHO	1	912	87.173	7.948	0.263	15.896	63.171	86.652	87.694	63	106
LOGG	CARN	78	1005	FENC	TR	COHO	2	106	105.509	7.053	0.685	14.105	49.738	104.153	106.866	92	123
LOGG	CARN	78	1705	FENC	TR	COHO	1	520	86.663	7.443	0.326	14.887	55.403	86.017	87.310	64	106
LOGG	CARN	78	1705	FENC	TR	COHO	2	36	100.944	6.748	1.125	13.497	45.540	98.661	103.228	92	119
LOGG	CARN	78	2405	FENC	TR	COHO	1	153	83.954	5.547	0.448	11.094	30.768	83.066	84.842	62	95
LOGG	CARN	78	2405	FENC	TR	COHO	2	30	99.200	9.448	1.725	18.896	89.269	95.681	102.719	87	128
LOGG	CARN	78	3105	FENC	TR	COHO	1	41	83.439	5.844	0.913	11.688	34.152	81.595	85.283	71	93
LOGG	CARN	78	3105	FENC	TR	COHO	2	3	96.000	1.000	0.577	2.000	1.000	93.517	98.483	95	97
LOGG	CARN	78	0706	FENC	TR	COHO	1	16	85.125	5.214	1.303	10.428	27.183	82.349	87.901	78	93
LOGG	CARN	78	0706	FENC	TR	COHO	2	3	109.667	3.215	1.856	6.429	10.333	101.686	117.647	106	112
LOGG	CARN	78	1406	FENC	TR	COHO	1	5	92.000	3.082	1.378	6.164	9.500	88.168	95.832	87	95
LOGG	CARN	78	1406	FENC	TR	COHO	2	5	107.400	9.555	4.273	19.110	91.300	95.521	119.279	101	124
LOGG	CARN	78	0806	2	SPS	COHO	0	202	45.960	4.257	0.299	8.513	18.118	45.367	46.553	38	62
LOGG	CARN	78	0806	2	SPS	COHO	1	6	78.333	7.062	2.883	14.123	49.867	70.924	85.742	66	85
LOGG	CARN	78	0806	3	SPS	COHO	0	363	47.066	4.840	0.254	9.679	23.421	46.563	47.569	34	62
LOGG	CARN	78	0806	3	SPS	COHO	1	17	78.765	8.927	2.165	17.854	79.691	74.175	83.355	65	99
LOGG	CARN	78	0706	4	SPS	COHO	0	346	45.092	5.499	0.296	10.997	30.235	44.507	45.678	35	59
LOGG	CARN	78	0706	4	SPS	COHO	1	41	72.268	8.204	1.281	16.407	67.301	69.680	74.856	60	87
LOGG	CARN	78	0506	5	SPS	COHO	0	131	41.557	2.915	0.255	5.829	8.495	41.053	42.061	35	53
LOGG	CARN	78	0506	5	SPS	COHO	1	41	66.732	5.015	0.783	10.030	25.151	65.150	68.314	58	78
LOGG	CARN	78	0706	6	SPS	COHO	0	306	41.480	3.154	0.180	6.308	9.949	41.123	41.837	35	55
LOGG	CARN	78	0706	6	SPS	COHO	1	37	68.541	6.492	1.067	12.984	42.144	66.385	70.696	58	91
LOGG	CARN	78	0506	8	SPS	COHO	0	149	43.034	3.926	0.322	7.851	15.411	42.397	43.670	35	58
LOGG	CARN	78	0506	8	SPS	COHO	1	11	72.545	6.455	1.946	12.911	41.673	68.205	76.886	60	82
LOGG	CARN	78	0706	TOTL	SPS	COHO	1	153	70.863	7.932	0.641	15.865	62.922	69.593	72.133	58	99
LOGG	CARN	78	2507	2	SPS	COHO	0	262	53.508	6.145	0.380	12.290	37.760	52.756	54.259	38	72
LOGG	CARN	78	2507	2	SPS	COHO	1	13	85.692	6.223	1.726	12.447	38.731	81.929	89.455	75	98
LOGG	CARN	78	2507	3	SPS	COHO	0	351	53.524	6.402	0.342	12.803	40.982	52.848	54.201	40	75
LOGG	CARN	78	2507	3	SPS	COHO	1	11	84.364	5.182	1.562	10.364	26.855	80.879	87.848	76	93
LOGG	CARN	78	2607	4	SPS	COHO	0	497	50.871	6.268	0.281	12.536	39.286	50.315	51.428	39	69
LOGG	CARN	78	2607	4	SPS	COHO	1	30	77.067	5.085	0.928	10.170	25.857	75.173	78.961	69	88
LOGG	CARN	78	2607	5	SPS	COHO	0	384	48.375	4.101	0.209	8.201	16.815	47.961	48.789	39	64
LOGG	CARN	78	2607	5	SPS	COHO	1	42	73.381	5.763	0.889	11.527	33.217	71.593	75.168	65	89
LOGG	CARN	78	2707	6	SPS	COHO	0	636	47.758	4.953	0.196	9.907	24.537	47.369	48.147	37	64
LOGG	CARN	78	2707	6	SPS	COHO	1	47	73.340	4.631	0.676	9.262	21.447	71.983	74.698	64	83
LOGG	CARN	78	2707	8	SPS	COHO	0	321	50.785	5.948	0.332	11.897	35.382	50.128	51.442	40	69
LOGG	CARN	78	2707	8	SPS	COHO	1	11	78.273	6.230	1.879	12.461	38.818	74.084	82.462	69	87

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	78	2607	TOTL	SPS	COHO	1	154	76.260	6.721	0.542	13.442	45.174	75.187	77.332	64	98
LOGG	CARN	78	0510	2	SPS	COHO	0	226	60.987	6.224	0.414	12.447	38.733	60.167	61.806	49	78
LOGG	CARN	78	0510	2	SPS	COHO	1	10	85.000	5.793	1.832	11.585	33.556	80.860	89.140	79	94
LOGG	CARN	78	0510	3	SPS	COHO	0	141	60.823	7.127	0.600	14.253	50.790	59.634	62.011	48	79
LOGG	CARN	78	2609	4	SPS	COHO	0	310	57.813	7.502	0.426	15.003	56.276	56.969	58.657	40	77
LOGG	CARN	78	2609	4	SPS	COHO	1	20	84.700	6.131	1.371	12.262	37.589	81.835	87.565	77	95
LOGG	CARN	78	2009	5	SPS	COHO	0	210	54.381	4.827	0.333	9.654	23.299	53.721	55.040	43	69
LOGG	CARN	78	2009	5	SPS	COHO	1	32	77.313	5.233	0.925	10.466	27.383	75.435	79.190	67	87
LOGG	CARN	78	2609	6	SPS	COHO	0	257	53.475	5.756	0.359	11.512	33.133	52.764	54.186	43	68
LOGG	CARN	78	2609	6	SPS	COHO	1	42	77.286	5.157	0.796	10.315	26.599	75.686	78.885	67	86
LOGG	CARN	78	2009	8	SPS	COHO	0	123	56.398	6.868	0.619	13.737	47.176	55.172	57.625	46	73
LOGG	CARN	78	2709	TOTL	SPS	COHO	1	127	80.866	7.545	0.670	15.090	56.926	79.541	82.192	67	109
LOGG	CARN	78	0706	TOTL	SPS	RBT	0	1	55.000								
LOGG	CARN	78	0706	TOTL	SPS	RBT	1	13	81.462	7.720	2.141	15.441	59.603	76.794	86.129	71	94
LOGG	CARN	78	2607	TOTL	SPS	RBT	2	5	114.400	6.877	3.076	13.755	47.300	105.850	122.950	106	124
LOGG	CARN	78	2607	TOTL	SPS	RBT	0	56	47.607	3.334	0.446	6.668	11.116	46.716	48.498	42	54
LOGG	CARN	78	2607	TOTL	SPS	RBT	1	23	92.304	7.029	1.466	14.057	49.403	89.271	95.338	74	104
LOGG	CARN	78	2709	TOTL	SPS	RBT	2	6	119.000	11.082	4.524	22.163	122.800	107.373	130.627	107	137
LOGG	CARN	78	2709	TOTL	SPS	RBT	0	16	63.688	6.549	1.637	13.099	42.896	60.200	67.175	51	74
LOGG	CARN	78	2709	TOTL	SPS	RBT	1	11	106.636	6.233	1.879	12.467	38.855	102.445	110.827	96	116
LOGG	CARN	78	2709	TOTL	SPS	RBT	2	6	129.500	11.149	4.552	22.298	124.300	117.803	141.197	117	150
LOGG	CARN	78	2709	TOTL	SPS	RBT	3	1	169.000								
LOGG	CARN	78	0706	TOTL	SPS	CT	0	22	31.545	1.438	0.307	2.877	2.069	30.908	32.183	29	34
LOGG	CARN	78	0706	TOTL	SPS	CT	1	11	81.909	8.408	2.535	16.816	70.691	76.256	87.562	71	97
LOGG	CARN	78	0706	TOTL	SPS	CT	2	5	116.000	7.874	3.521	15.748	62.000	106.211	125.789	105	123
LOGG	CARN	78	0706	TOTL	SPS	CT	3	3	150.333	9.815	5.667	19.630	96.333	125.967	174.700	139	156
LOGG	CARN	78	2607	TOTL	SPS	CT	0	110	44.545	4.389	0.418	8.777	19.259	43.717	45.374	30	57
LOGG	CARN	78	2607	TOTL	SPS	CT	1	16	84.875	9.919	2.480	19.838	98.383	79.593	90.157	72	106
LOGG	CARN	78	2607	TOTL	SPS	CT	2	4	123.500	4.123	2.062	8.246	17.000	116.944	130.056	120	128
LOGG	CARN	78	2607	TOTL	SPS	CT	3	6	159.000	13.491	5.508	26.981	182.000	144.846	173.154	142	181
LOGG	CARN	78	2709	TOTL	SPS	CT	4	1	220.000								
LOGG	CARN	78	2709	TOTL	SPS	CT	0	104	54.962	6.106	0.599	12.211	37.280	53.776	56.147	44	75
LOGG	CARN	78	2709	TOTL	SPS	CT	1	15	91.600	8.692	2.244	17.383	75.543	86.798	96.402	79	107
LOGG	CARN	78	2709	TOTL	SPS	CT	2	8	134.000	8.435	2.982	16.869	71.143	126.962	141.038	119	145
LOGG	CARN	78	2709	TOTL	SPS	CT	3	3	185.667	26.407	15.246	52.814	697.333	120.108	251.225	157	209
LOGG	CARN	78	0806	2	SPS	ALUT	-	99	64.889	13.376	1.344	26.752	178.916	62.227	67.551	41	99
LOGG	CARN	78	0706	TOTL	SPS	ALUT	-	143	72.357	16.807	1.405	33.614	282.471	69.574	75.139	41	107
LOGG	CARN	78	2507	2	SPS	ALUT	-	211	60.621	12.492	0.860	24.984	156.056	58.918	62.324	34	109
LOGG	CARN	78	2607	TOTL	SPS	ALUT	-	246	64.504	16.642	1.061	33.285	276.969	62.403	66.605	34	135
LOGG	CARN	78	0510	2	SPS	ALUT	-	256	60.109	10.452	0.653	20.905	109.251	58.816	61.403	37	96
LOGG	CARN	78	2709	TOTL	SPS	ALUT	-	334	66.329	16.206	0.887	32.412	262.642	64.574	68.085	37	110
LOGG	CARN	78	0806	2	SPS	ASPR	-	22	82.000	15.517	3.308	31.033	240.762	75.119	88.881	61	117
LOGG	CARN	78	2507	2	SPS	ASPR	-	15	82.267	16.918	4.368	33.835	286.210	72.919	91.614	61	115
LOGG	CARN	78	0510	2	SPS	ASPR	-	10	88.600	13.525	4.277	27.051	182.933	78.934	98.266	73	111
LOGG	CARN	78	0606	UPER	S	CT	1	17	62.882	7.631	1.851	15.262	58.235	58.959	66.806	50	78
LOGG	CARN	78	0606	UPER	S	CT	2	19	95.789	14.744	3.383	29.489	217.398	88.686	102.893	80	130
LOGG	CARN	78	1909	UPER	S	CT	0	15	44.667	3.658	0.944	7.316	13.381	42.645	46.688	36	50
LOGG	CARN	78	1909	UPER	S	CT	1	12	88.833	11.999	3.464	23.997	143.970	81.213	96.454	68	112
LOGG	CARN	78	1909	UPER	S	CT	2	4	117.750	4.573	2.287	9.147	20.917	110.478	125.022	113	124

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	78	0606	2100	S	CT	1	31	60.548	5.494	0.987	10.989	30.189	58.535	62.562	51	71
LOGG	CARN	78	0606	2100	S	CT	2	17	89.882	14.840	3.599	29.681	220.235	82.252	97.513	72	117
LOGG	CARN	78	0610	2100	S	CT	0	14	53.786	8.011	2.141	16.023	64.181	49.161	58.411	42	67
LOGG	CARN	78	0610	2100	S	CT	1	31	86.613	13.119	2.356	26.238	172.112	81.806	91.420	70	115
LOGG	CARN	78	0610	2100	S	CT	2	4	136.500	9.815	4.907	19.630	96.333	120.894	152.106	122	143
LOGG	CARN	78	2009	1600	S	COHO	0	26	56.577	6.087	1.194	12.174	37.054	54.118	59.036	45	69
LOGG	CARN	78	2009	1600	S	COHO	1	3	82.333	4.041	2.333	8.083	16.333	72.300	92.367	78	86
LOGG	CARN	78	3008	USEL	S	COHO	0	25	60.920	8.746	1.749	17.492	76.493	57.317	64.523	48	87
LOGG	CARN	78	3008	USEL	S	CT	0	5	44.200	3.633	1.625	7.266	13.200	39.683	48.717	38	47
LOGG	CARN	78	3008	USEL	S	CT	1	11	88.818	9.516	2.869	19.033	90.564	82.420	95.217	75	106
LOGG	CARN	78	3008	USEL	S	CT	2	3	128.333	14.572	8.413	29.143	212.333	92.158	164.509	112	140
LOGG	CARN	78	3008	USEL	S	ALUT	-	109	68.413	17.568	1.683	35.137	308.652	65.081	71.745	44	114
LOGG	CARN	78	0610	FRED	PS	COHO	0	114	64.175	9.814	0.919	19.627	96.305	62.356	65.995	47	95
LOGG	CARN	78	0610	FRED	PS	ALUT	-	32	43.375	14.522	2.567	29.044	210.887	38.164	48.586	34	109
LOGG	CARN	78	1909	PACH	SPS	COHO	0	137	59.920	8.630	0.737	17.259	74.471	58.460	61.380	45	83
LOGG	CARN	78	1909	PACH	SPS	COHO	1	7	95.571	8.203	3.100	16.406	67.286	87.976	103.167	88	107
LOGG	CARN	78	1909	PACH	SPS	RBT	0	51	52.627	5.016	0.702	10.032	25.158	51.216	54.039	44	68
LOGG	CARN	78	1909	PACH	SPS	RBT	1	2	107.000	4.243	3.000	8.485	18.000	68.870	145.130	104	110
LOGG	CARN	78	1909	PACH	SPS	ALUT	-	112	66.411	12.563	1.187	25.126	157.830	64.060	68.761	42	107
LOGG	CARN	78	1909	PACH	SPS	ASPR	-	73	92.055	20.026	2.344	40.051	401.025	87.391	96.719	64	172
LOGG	CARN	78	3008	RITH	S	CT	0	16	56.000	9.953	2.488	19.906	99.067	50.700	61.300	44	76
LOGG	CARN	78	3008	RITH	S	CT	1	12	98.833	9.321	2.691	18.642	86.879	92.914	104.753	80	107
LOGG	CARN	78	3008	RITH	S	CT	2	3	129.000	15.588	9.000	31.177	243.000	90.300	167.700	120	147
LOGG	CARN	78	3008	RITH	S	CT	3	1	171.000								
LOGG	CARN	79	2403	FENC	TR	CHUM	0	65	44.385	1.155	0.143	2.310	1.334	44.100	44.670	41	46
LOGG	CARN	79	1504	FENC	TR	CHUM	0	51	40.980	0.761	0.107	1.523	0.580	40.766	41.195	39	42
LOGG	CARN	79	2104	FENC	TR	CHUM	0	52	41.288	0.977	0.135	1.954	0.954	41.018	41.559	39	43
LOGG	CARN	79	0305	FENC	TR	CHUM	0	17	41.353	1.169	0.284	2.339	1.368	40.752	41.954	39	43
LOGG	CARN	79	2403	FENC	TR	COHO	0	48	36.313	0.903	0.130	1.806	0.815	36.051	36.574	33	38
LOGG	CARN	79	0204	FENC	TR	COHO	0	54	34.981	1.339	0.182	2.677	1.792	34.617	35.346	33	38
LOGG	CARN	79	1304	FENC	TR	COHO	0	50	37.020	1.253	0.177	2.507	1.571	36.664	37.376	34	39
LOGG	CARN	79	2104	FENC	TR	COHO	0	50	38.180	0.720	0.102	1.439	0.518	37.975	38.385	36	39
LOGG	CARN	79	0205	FENC	TR	COHO	0	50	37.260	1.065	0.151	2.131	1.135	36.957	37.563	36	43
LOGG	CARN	79	1805	FENC	TR	COHO	0	40	41.700	3.709	0.586	7.417	13.754	40.516	42.884	38	49
LOGG	CARN	79	0506	FENC	TR	COHO	0	28	46.500	4.150	0.784	8.300	17.222	44.892	48.108	38	56
LOGG	CARN	79	1107	FENC	TR	COHO	0	183	50.672	4.472	0.331	8.945	20.002	50.018	51.327	40	62
LOGG	CARN	79	2303	FENC	TR	COHO	1	12	70.250	3.841	1.109	7.681	14.750	67.811	72.689	64	78
LOGG	CARN	79	2303	FENC	TR	COHO	2	1	82.000								
LOGG	CARN	79	2803	FENC	TR	COHO	1	46	70.848	4.512	0.665	9.023	20.354	69.511	72.185	61	81
LOGG	CARN	79	2803	FENC	TR	COHO	2	10	84.000	7.055	2.231	14.111	49.778	78.958	89.042	72	99
LOGG	CARN	79	0404	FENC	TR	COHO	1	102	71.765	5.640	0.558	11.279	31.805	70.659	72.870	60	87
LOGG	CARN	79	0404	FENC	TR	COHO	2	11	89.273	6.665	2.009	13.329	44.418	84.792	93.754	79	98
LOGG	CARN	79	1104	FENC	TR	COHO	1	423	76.073	8.046	0.391	16.091	64.732	75.299	76.848	60	103
LOGG	CARN	79	1104	FENC	TR	COHO	2	60	93.667	10.840	1.399	21.681	117.514	90.868	96.466	77	127
LOGG	CARN	79	1804	FENC	TR	COHO	1	357	77.627	8.576	0.454	17.151	73.543	76.729	78.526	60	102
LOGG	CARN	79	1804	FENC	TR	COHO	2	82	93.634	8.626	0.953	17.252	74.408	91.739	95.530	77	110
LOGG	CARN	79	2504	FENC	TR	COHO	1	407	79.572	7.503	0.372	15.005	56.290	78.836	80.309	60	95
LOGG	CARN	79	2504	FENC	TR	COHO	2	112	98.393	7.568	0.715	15.135	57.268	96.977	99.809	85	120
LOGG	CARN	79	0205	FENC	TR	COHO	1	641	84.495	8.485	0.335	16.969	71.988	83.831	85.158	60	107
LOGG	CARN	79	0205	FENC	TR	COHO	2	271	97.280	8.880	0.539	17.761	78.862	96.212	98.349	81	127

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	25	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	79	0905	FENC	TR	COHO	1	345	83.026	7.949	0.428	15.897	63.182	82.179	83.873	60	107
LOGG	CARN	79	0905	FENC	TR	COHO	2	90	94.878	9.401	0.991	18.802	88.378	92.906	96.850	81	118
LOGG	CARN	79	1605	FENC	TR	COHO	1	272	84.658	6.550	0.397	13.099	42.897	83.872	85.444	68	102
LOGG	CARN	79	1605	FENC	TR	COHO	2	44	99.818	6.449	0.972	12.899	41.594	97.864	101.772	90	111
LOGG	CARN	79	2305	FENC	TR	COHO	1	112	83.196	6.657	0.629	13.315	44.321	81.951	84.442	62	95
LOGG	CARN	79	2305	FENC	TR	COHO	2	5	99.800	2.280	1.020	4.561	5.200	96.965	102.635	97	102
LOGG	CARN	79	3005	FENC	TR	COHO	1	33	85.455	7.571	1.318	15.142	57.318	82.779	88.130	60	95
LOGG	CARN	79	3005	FENC	TR	COHO	2	3	98.333	2.082	1.202	4.163	4.333	93.165	103.501	96	100
LOGG	CARN	79	0606	FENC	TR	COHO	1	12	83.833	7.907	2.282	15.813	62.515	78.812	88.855	74	99
LOGG	CARN	79	0606	FENC	TR	COHO	2	8	100.000	4.690	1.658	9.381	22.000	96.086	103.914	95	106
LOGG	CARN	79	0406	2	SPS	COHO	0	124	43.266	4.300	0.386	8.600	18.490	42.502	44.031	35	60
LOGG	CARN	79	0406	2	SPS	COHO	1	19	75.579	3.834	0.880	7.669	14.702	73.732	77.426	68	82
LOGG	CARN	79	1306	3	SPS	COHO	0	199	48.568	4.053	0.287	8.106	16.428	47.999	49.137	39	62
LOGG	CARN	79	1306	3	SPS	COHO	1	36	77.000	4.459	0.743	8.919	19.886	75.491	78.509	66	85
LOGG	CARN	79	1306	4	SPS	COHO	0	366	45.036	4.281	0.224	8.561	18.325	44.592	45.479	37	61
LOGG	CARN	79	1306	4	SPS	COHO	1	61	73.607	5.270	0.675	10.541	27.776	72.257	74.956	62	88
LOGG	CARN	79	1106	5	SPS	COHO	0	74	48.365	3.703	0.430	7.407	13.714	47.508	49.222	40	61
LOGG	CARN	79	1106	5	SPS	COHO	1	46	70.152	4.190	0.618	8.380	17.554	68.911	71.394	63	79
LOGG	CARN	79	1206	6	SPS	COHO	0	219	46.443	3.376	0.228	6.751	11.395	45.991	46.895	39	56
LOGG	CARN	79	1206	6	SPS	COHO	1	28	68.393	3.994	0.755	7.988	15.951	66.846	69.940	62	78
LOGG	CARN	79	1206	8	SPS	COHO	0	146	44.466	4.434	0.367	8.867	19.657	43.739	45.192	37	61
LOGG	CARN	79	1206	8	SPS	COHO	1	14	76.286	4.906	1.311	9.811	24.066	73.454	79.118	68	84
LOGG	CARN	79	1106	TOTL	SPS	COHO	1	204	73.078	5.438	0.381	10.876	29.570	72.325	73.832	62	88
LOGG	CARN	79	2407	2	SPS	COHO	0	257	51.101	5.468	0.341	10.935	29.896	50.426	51.776	42	68
LOGG	CARN	79	2407	2	SPS	COHO	1	20	76.950	6.871	1.536	13.742	47.208	73.739	80.161	67	90
LOGG	CARN	79	2407	3	SPS	COHO	0	212	56.708	5.158	0.354	10.316	26.606	56.006	57.409	45	74
LOGG	CARN	79	2407	3	SPS	COHO	1	36	80.111	5.518	0.920	11.035	30.444	78.244	81.978	70	89
LOGG	CARN	79	2507	4	SPS	COHO	0	529	51.616	5.517	0.240	11.033	30.434	51.141	52.091	39	68
LOGG	CARN	79	2507	4	SPS	COHO	1	51	78.686	5.175	0.725	10.350	26.780	77.230	80.143	68	92
LOGG	CARN	79	2507	5	SPS	COHO	0	89	55.472	4.806	0.509	9.611	23.093	54.458	56.486	41	66
LOGG	CARN	79	2507	5	SPS	COHO	1	26	74.000	4.118	0.808	8.237	16.960	72.336	75.664	68	82
LOGG	CARN	79	2607	6	SPS	COHO	0	182	53.978	4.150	0.308	8.301	17.226	53.369	54.587	44	64
LOGG	CARN	79	2607	6	SPS	COHO	1	12	75.333	4.355	1.257	8.711	18.970	72.567	78.099	70	82
LOGG	CARN	79	2607	8	SPS	COHO	0	626	49.091	5.010	0.200	10.019	25.097	48.695	49.488	41	68
LOGG	CARN	79	2607	8	SPS	COHO	1	8	80.875	3.603	1.274	7.206	12.982	77.869	83.881	75	84
LOGG	CARN	79	2507	TOTL	SPS	COHO	1	153	77.850	5.617	0.454	11.234	31.550	76.951	78.749	67	92
LOGG	CARN	79	2009	2	SPS	COHO	0	288	57.351	5.795	0.342	11.591	33.587	56.675	58.027	45	72
LOGG	CARN	79	2009	2	SPS	COHO	1	40	79.525	5.598	0.885	11.195	31.333	77.737	81.313	71	92
LOGG	CARN	79	2009	3	SPS	COHO	0	236	61.886	5.210	0.339	10.419	27.140	61.214	62.557	46	74
LOGG	CARN	79	2009	3	SPS	COHO	1	43	81.953	5.777	0.881	11.555	33.379	80.183	83.724	73	97
LOGG	CARN	79	1909	4	SPS	COHO	0	489	57.029	5.819	0.263	11.639	33.864	56.508	57.550	41	73
LOGG	CARN	79	1909	4	SPS	COHO	1	45	81.800	5.687	0.848	11.375	32.345	80.096	83.504	73	95
LOGG	CARN	79	1909	5	SPS	COHO	0	66	62.652	4.291	0.528	8.583	18.415	61.600	63.703	49	71
LOGG	CARN	79	1909	5	SPS	COHO	1	23	78.652	3.845	0.802	7.690	14.783	76.993	80.312	72	85
LOGG	CARN	79	1809	6	SPS	COHO	0	187	60.733	4.718	0.345	9.436	22.261	60.049	61.416	45	70
LOGG	CARN	79	1808	6	SPS	COHO	1	23	74.217	3.089	0.644	6.178	9.542	72.884	75.551	70	81
LOGG	CARN	79	1809	8	SPS	COHO	0	394	55.071	5.754	0.290	11.508	33.109	54.497	55.645	44	70
LOGG	CARN	79	1809	8	SPS	COHO	1	15	79.667	6.433	1.661	12.866	41.381	76.112	83.221	72	93
LOGG	CARN	79	1909	TOTL	SPS	COHO	1	189	79.878	5.784	0.421	11.569	33.459	79.045	80.711	70	97
LOGG	CARN	79	1106	TOTL	SPS	RBT	1	12	85.667	9.208	2.658	18.416	84.788	79.819	91.515	77	109
LOGG	CARN	79	1106	TOTL	SPS	RBT	2	5	109.200	7.294	3.262	14.588	53.200	100.132	118.268	100	117

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	79	2507	TOTL	SPS	RBT	1	7	96.571	11.731	4.434	23.462	137.619	85.708	107.435	83	117
LOGG	CARN	79	2507	TOTL	SPS	RBT	2	1	115.000								
LOGG	CARN	79	1909	TOTL	SPS	RBT	2	4	124.750	4.272	2.136	8.544	18.250	117.958	131.542	120	130
LOGG	CARN	79	1106	TOTL	SPS	CT	0	2	25.500	0.707	0.500	1.414	0.500	19.145	31.855	25	26
LOGG	CARN	79	1106	TOTL	SPS	CT	1	9	89.778	13.618	4.539	27.236	185.444	79.292	100.263	74	111
LOGG	CARN	79	1106	TOTL	SPS	CT	2	6	110.833	14.247	5.816	28.493	202.967	95.886	125.781	96	132
LOGG	CARN	79	1106	TOTL	SPS	CT	3	1	155.000								
LOGG	CARN	79	2507	TOTL	SPS	CT	0	79	40.696	3.310	0.372	6.621	10.958	39.955	41.437	31	49
LOGG	CARN	79	2507	TOTL	SPS	CT	1	6	95.000	9.209	3.759	18.417	84.800	85.338	104.662	84	109
LOGG	CARN	79	2507	TOTL	SPS	CT	2	4	131.500	7.724	3.862	15.449	59.667	119.218	143.782	124	142
LOGG	CARN	79	2507	TOTL	SPS	CT	3	2	190.500	10.607	7.500	21.213	112.500	95.175	285.825	183	198
LOGG	CARN	79	1909	TOTL	SPS	CT	0	37	53.270	4.221	0.694	8.441	17.814	51.869	54.672	44	63
LOGG	CARN	79	1909	TOTL	SPS	CT	1	11	96.455	10.903	3.287	21.806	118.873	89.124	103.785	81	113
LOGG	CARN	79	1909	TOTL	SPS	CT	2	1	140.000								
LOGG	CARN	79	0406	2	SPS	ALUT	-	181	62.785	9.985	0.742	19.970	99.703	61.315	64.254	45	102
LOGG	CARN	79	1106	TOTL	SPS	ALUT	-	238	68.731	15.479	1.003	30.958	239.607	66.744	70.718	45	111
LOGG	CARN	79	2407	2	SPS	ALUT	-	113	66.965	10.543	0.992	21.086	111.159	65.001	68.928	41	100
LOGG	CARN	79	2507	TOTL	SPS	ALUT	-	168	71.571	13.554	1.046	27.109	183.719	69.501	73.642	41	108
LOGG	CARN	79	2009	2	SPS	ALUT	-	108	71.694	10.154	0.977	20.309	103.111	69.760	73.629	51	100
LOGG	CARN	79	1909	TOTL	SPS	ALUT	-	173	75.555	12.471	0.948	24.941	155.516	73.678	77.432	51	110
LOGG	CARN	79	0406	2	SPS	ASPR	-	13	90.231	14.278	3.960	28.556	203.859	81.598	98.864	65	118
LOGG	CARN	79	2407	2	SPS	ASPR	-	18	87.500	15.336	3.615	30.673	235.206	79.873	95.127	64	119
LOGG	CARN	79	2009	2	SPS	ASPR	-	15	90.267	16.714	4.315	33.428	279.352	81.032	99.502	64	110
LOGG	CARN	79	1406	UPER	S	CT	1	27	65.815	6.662	1.282	13.325	44.387	63.174	68.456	51	75
LOGG	CARN	79	1406	UPER	S	CT	2	21	98.857	9.986	2.179	19.973	99.729	94.303	103.412	87	125
LOGG	CARN	79	1406	UPER	S	CT	3	5	131.200	7.463	3.338	14.926	55.700	121.921	140.479	120	137
LOGG	CARN	79	1010	UPER	S	CT	0	37	48.757	4.740	0.779	9.480	22.467	47.183	50.331	37	58
LOGG	CARN	79	1010	UPER	S	CT	1	31	88.000	10.733	1.928	21.466	115.200	84.067	91.933	65	108
LOGG	CARN	79	1010	UPER	S	CT	2	6	131.000	8.832	3.606	17.664	78.000	121.734	140.266	118	144
LOGG	CARN	79	1010	UPER	S	CT	3	1	157.000								
LOGG	CARN	79	1106	2100	S	CT	1	13	76.692	9.313	2.583	18.626	86.731	71.061	82.323	58	95
LOGG	CARN	79	1106	2100	S	CT	2	5	101.200	10.640	4.758	21.279	113.200	87.972	114.428	92	117
LOGG	CARN	79	1709	2100	S	CT	0	3	59.333	2.517	1.453	5.033	6.333	53.086	65.581	57	62
LOGG	CARN	79	1709	2100	S	CT	1	10	92.200	10.315	3.262	20.630	106.400	84.828	99.572	77	108
LOGG	CARN	79	1709	2100	S	CT	2	4	122.000	8.367	4.183	16.733	70.000	108.697	135.303	115	133
LOGG	CARN	79	2607	1600	S	COHO	0	26	52.885	4.208	0.825	8.416	17.706	51.185	54.585	43	61
LOGG	CARN	79	2607	1600	S	COHO	1	31	72.806	5.958	1.070	11.915	35.495	70.624	74.989	65	85
LOGG	CARN	79	1909	1600	S	COHO	0	29	63.724	6.041	1.122	12.082	36.493	61.425	66.024	54	74
LOGG	CARN	79	1909	1600	S	COHO	1	14	81.214	4.775	1.276	9.549	22.797	78.458	83.971	76	91
LOGG	CARN	79	1608	USEL	S	COHO	0	68	58.691	6.741	0.817	13.482	45.441	57.064	60.318	42	73
LOGG	CARN	79	1608	USEL	S	CT	0	22	45.045	4.445	0.948	8.890	19.760	43.074	47.017	35	52
LOGG	CARN	79	1608	USEL	S	CT	1	3	86.667	1.155	0.667	2.309	1.333	83.800	89.533	86	88
LOGG	CARN	79	1608	USEL	S	CT	2	1	102.000								
LOGG	CARN	79	1608	USEL	S	ALUT	-	123	65.886	16.115	1.453	32.230	259.692	63.009	68.763	44	122
LOGG	CARN	79	1608	USEL	S	ASPR	-	3	90.333	17.010	9.821	34.020	289.333	48.105	132.562	73	107
LOGG	CARN	79	1408	FRED	SPS	COHO	0	158	64.076	7.449	0.593	14.898	55.485	62.903	65.249	40	83
LOGG	CARN	79	1408	FRED	SPS	RBT	0	25	52.160	5.640	1.128	11.279	31.807	49.836	54.484	42	65
LOGG	CARN	79	1408	FRED	SPS	ALUT	-	83	30.928	3.294	0.362	6.587	10.848	30.208	31.647	27	53
LOGG	CARN	79	1408	FRED	SPS	ASPR	-	43	77.279	16.163	2.465	32.327	261.254	72.325	82.233	41	110
LOGG	CARN	79	1508	PACH	SPS	COHO	0	420	48.502	6.032	0.294	12.063	36.379	47.920	49.085	40	73
LOGG	CARN	79	1508	PACH	SPS	COHO	1	20	88.800	4.851	1.085	9.703	23.537	86.533	91.067	79	98

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S**S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	79	1508	PACH	SPS	RBT	0	97	48.309	4.485	0.455	8.969	20.112	47.408	49.211	36	60
LOGG	CARN	79	1508	PACH	SPS	RBT	1	7	90.429	4.577	1.730	9.155	20.952	86.190	94.667	84	97
LOGG	CARN	79	1508	PACH	SPS	ALUT	-	54	66.241	10.626	1.446	21.251	112.903	63.349	69.133	48	91
LOGG	CARN	79	1508	PACH	SPS	ASPR	-	69	89.652	17.257	2.077	34.513	297.789	85.518	93.786	62	142
LOGG	CARN	79	1308	RITH	S	CT	0	22	52.864	5.285	1.127	10.570	27.933	50.520	55.207	45	63
LOGG	CARN	79	1308	RITH	S	CT	1	4	107.000	5.774	2.887	11.547	33.333	97.820	116.180	100	114
LOGG	CARN	79	1308	RITH	S	CT	2	6	126.833	14.317	5.845	28.633	204.967	111.812	141.854	111	150
LOGG	CARN	79	1308	RITH	S	CT	3	2	185.000	32.527	23.000	65.054	1058.000	-107.330	477.330	162	208
LOGG	CARN	80	0304	FENC	TR	CHUM	0	57	41.719	1.082	0.143	2.163	1.170	41.433	42.006	38	44
LOGG	CARN	80	1803	FENC	TR	COHO	0	61	38.000	1.528	0.196	3.055	2.333	37.609	38.391	34	40
LOGG	CARN	80	2703	FENC	TR	COHO	0	46	38.174	1.495	0.220	2.990	2.236	37.731	38.617	35	41
LOGG	CARN	80	0304	FENC	TR	COHO	0	172	37.692	1.504	0.115	3.007	2.261	37.465	37.919	35	43
LOGG	CARN	80	1204	FENC	TR	COHO	0	52	37.500	1.245	0.173	2.489	1.549	37.155	37.845	35	40
LOGG	CARN	80	2304	FENC	TR	COHO	0	62	37.129	2.265	0.288	4.530	5.131	36.557	37.701	33	45
LOGG	CARN	80	0305	FENC	TR	COHO	0	25	36.800	0.707	0.141	1.414	0.500	36.509	37.091	35	38
LOGG	CARN	80	1205	FENC	TR	COHO	0	17	38.588	2.320	0.563	4.640	5.382	37.395	39.781	36	44
LOGG	CARN	80	2205	FENC	TR	COHO	0	63	37.984	1.611	0.203	3.223	2.597	37.580	38.388	34	46
LOGG	CARN	80	0206	FENC	TR	COHO	0	16	39.125	2.964	0.741	5.927	8.783	37.547	40.703	34	44
LOGG	CARN	80	0906	FENC	TR	COHO	0	49	38.245	2.278	0.325	4.556	5.189	37.591	38.899	32	45
LOGG	CARN	80	1206	FENC	TR	COHO	0	56	39.821	2.992	0.400	5.983	8.949	39.022	40.621	34	52
LOGG	CARN	80	2406	FENC	TR	COHO	0	75	41.160	2.455	0.284	4.910	6.028	40.596	41.724	37	47
LOGG	CARN	80	0207	FENC	TR	COHO	0	138	41.333	2.965	0.252	5.931	8.793	40.834	41.833	35	51
LOGG	CARN	80	1107	FENC	TR	COHO	0	49	41.939	2.221	0.317	4.442	4.934	41.301	42.577	38	48
LOGG	CARN	80	2003	FENC	TR	COHO	1	47	71.936	4.650	0.678	9.301	21.626	70.573	73.300	63	81
LOGG	CARN	80	2003	FENC	TR	COHO	2	5	89.400	2.302	1.030	4.604	5.300	86.538	92.262	87	93
LOGG	CARN	80	2603	FENC	TR	COHO	1	32	74.375	5.999	1.060	11.997	35.984	72.222	76.528	63	89
LOGG	CARN	80	2603	FENC	TR	COHO	2	5	93.600	8.473	3.789	16.947	71.800	83.065	104.135	85	104
LOGG	CARN	80	0204	FENC	TR	COHO	1	92	75.707	6.391	0.666	12.782	40.847	74.387	77.026	60	91
LOGG	CARN	80	0204	FENC	TR	COHO	2	6	94.667	12.533	5.116	25.065	157.067	81.517	107.816	84	119
LOGG	CARN	80	0904	FENC	TR	COHO	1	207	76.681	8.188	0.569	16.376	67.043	75.554	77.808	60	96
LOGG	CARN	80	0904	FENC	TR	COHO	2	30	94.933	10.272	1.875	20.544	105.513	91.108	98.759	78	115
LOGG	CARN	80	1604	FENC	TR	COHO	1	324	77.793	8.177	0.454	16.355	66.870	76.894	78.693	60	96
LOGG	CARN	80	1604	FENC	TR	COHO	2	97	102.959	13.819	1.403	27.639	190.977	100.181	105.737	78	183
LOGG	CARN	80	2304	FENC	TR	COHO	1	317	84.044	9.769	0.549	19.539	95.441	82.958	85.131	60	108
LOGG	CARN	80	2304	FENC	TR	COHO	2	171	105.731	10.235	0.783	20.471	104.763	104.181	107.281	82	138
LOGG	CARN	80	3004	FENC	TR	COHO	1	1033	88.996	10.002	0.311	20.005	100.048	88.380	89.612	63	110
LOGG	CARN	80	3004	FENC	TR	COHO	2	364	106.407	8.135	0.426	16.270	66.181	105.562	107.251	94	134
LOGG	CARN	80	0705	FENC	TR	COHO	1	869	88.168	8.712	0.296	17.423	75.891	87.583	88.753	60	114
LOGG	CARN	80	0705	FENC	TR	COHO	2	207	103.845	8.538	0.593	17.076	72.898	102.670	105.020	89	126
LOGG	CARN	80	1405	FENC	TR	COHO	1	303	85.234	8.040	0.462	16.080	64.644	84.320	86.149	60	113
LOGG	CARN	80	1405	FENC	TR	COHO	2	44	102.182	8.024	1.210	16.048	64.385	99.750	104.613	89	117
LOGG	CARN	80	2105	FENC	TR	COHO	1	197	87.452	8.710	0.621	17.420	75.861	86.223	88.680	63	105
LOGG	CARN	80	2105	FENC	TR	COHO	2	27	107.370	13.457	2.590	26.914	181.088	102.035	112.705	85	148
LOGG	CARN	80	2805	FENC	TR	COHO	1	28	86.286	7.241	1.368	14.482	52.434	83.480	89.091	69	105
LOGG	CARN	80	0406	FENC	TR	COHO	1	4	80.250	4.272	2.136	8.544	18.250	73.458	87.042	75	85
LOGG	CARN	80	1106	FENC	TR	COHO	1	4	85.000	9.092	4.546	18.184	82.667	70.544	99.456	73	93
LOGG	CARN	80	2207	2	SPS	COHO	0	256	46.977	5.799	0.362	11.597	33.623	46.259	47.694	36	64
LOGG	CARN	80	2207	2	SPS	COHO	1	38	72.132	5.738	0.931	11.477	32.928	70.251	74.012	64	90
LOGG	CARN	80	2207	3	SPS	COHO	0	368	49.152	6.636	0.346	13.272	44.037	48.467	49.837	36	71
LOGG	CARN	80	2207	3	SPS	COHO	1	38	78.921	10.318	1.674	20.635	106.453	75.540	82.302	65	108

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S**S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	80	2407	4	SPS	COHO	0	718	47.428	5.765	0.215	11.531	33.238	47.002	47.854	37	63
LOGG	CARN	80	2407	4	SPS	COHO	1	66	73.439	7.455	0.918	14.909	55.573	71.613	75.265	60	91
LOGG	CARN	80	2407	5	SPS	COHO	0	311	46.000	4.984	0.283	9.969	24.845	45.440	46.560	36	64
LOGG	CARN	80	2407	5	SPS	COHO	1	13	76.692	6.223	1.726	12.447	38.731	72.929	80.455	66	87
LOGG	CARN	80	2307	6	SPS	COHO	0	557	45.761	5.603	0.237	11.205	31.391	45.291	46.231	36	67
LOGG	CARN	80	2307	6	SPS	COHO	1	18	78.000	5.841	1.377	11.682	34.118	75.095	80.905	68	86
LOGG	CARN	80	2307	8	SPS	COHO	0	546	47.535	4.957	0.212	9.915	24.576	47.115	47.955	37	65
LOGG	CARN	80	2307	8	SPS	COHO	1	38	75.947	6.853	1.112	13.707	46.970	73.702	78.193	65	103
LOGG	CARN	80	2307	TOTL	SPS	COHO	1	211	75.232	7.817	0.538	15.634	61.103	74.167	76.298	60	108
LOGG	CARN	80	1609	2	SPS	COHO	0	283	53.159	5.745	0.341	11.489	32.999	52.483	53.835	40	68
LOGG	CARN	80	1609	2	SPS	COHO	1	47	73.489	7.703	1.124	15.407	59.342	71.231	75.748	61	95
LOGG	CARN	80	1609	3	SPS	COHO	0	300	54.283	6.201	0.358	12.403	38.458	53.574	54.992	39	70
LOGG	CARN	80	1609	3	SPS	COHO	1	55	77.655	10.045	1.354	20.089	100.897	74.946	80.363	62	99
LOGG	CARN	80	1709	4	SPS	COHO	0	637	50.432	6.519	0.258	13.037	42.491	49.920	50.943	38	69
LOGG	CARN	80	1709	4	SPS	COHO	1	62	76.339	6.978	0.886	13.955	48.687	74.575	78.102	61	90
LOGG	CARN	80	1709	5	SPS	COHO	0	286	49.465	5.779	0.342	11.559	33.401	48.788	50.142	37	69
LOGG	CARN	80	1709	5	SPS	COHO	1	22	76.364	10.395	2.216	20.790	108.052	71.764	80.973	61	94
LOGG	CARN	80	1809	6	SPS	COHO	0	410	50.637	6.038	0.298	12.077	36.462	50.046	51.227	38	70
LOGG	CARN	80	1809	6	SPS	COHO	1	16	79.750	5.745	1.436	11.489	33.000	76.691	82.809	71	88
LOGG	CARN	80	1809	8	SPS	COHO	0	601	52.636	5.390	0.220	10.781	29.055	52.200	53.071	40	69
LOGG	CARN	80	1809	8	SPS	COHO	1	49	78.082	5.450	0.779	10.900	29.702	76.517	79.647	71	92
LOGG	CARN	80	1709	TOTL	SPS	COHO	0	2519	51.663	6.190	0.123	12.380	38.317	51.418	51.907	37	71
LOGG	CARN	80	1709	TOTL	SPS	COHO	1	248	76.653	8.031	0.510	16.063	64.503	75.643	77.663	61	98
LOGG	CARN	80	2307	TOTL	SPS	RBT	0	13	41.538	1.713	0.475	3.427	2.936	40.502	42.574	38	45
LOGG	CARN	80	2307	TOTL	SPS	RBT	1	2	92.500	2.121	1.500	4.243	4.500	73.435	111.565	91	94
LOGG	CARN	80	2307	TOTL	SPS	RBT	2	1	124.000								
LOGG	CARN	80	2307	TOTL	SPS	RBT	3	2	192.500	13.435	9.500	26.870	180.500	71.755	313.245	183	202
LOGG	CARN	80	1709	TOTL	SPS	RBT	0	28	67.964	5.660	1.070	11.320	32.036	65.772	70.157	59	80
LOGG	CARN	80	1709	TOTL	SPS	RBT	1	2	98.000	4.243	3.000	8.485	18.000	59.870	136.130	95	101
LOGG	CARN	80	1709	TOTL	SPS	RBT	2	3	156.000	25.239	14.572	50.476	637.000	93.342	218.658	129	179
LOGG	CARN	80	2307	TOTL	SPS	CT	0	16	32.688	1.702	0.425	3.403	2.896	31.781	33.594	30	36
LOGG	CARN	80	2307	TOTL	SPS	CT	1	14	94.071	9.236	2.468	18.472	85.302	88.740	99.403	79	107
LOGG	CARN	80	2307	TOTL	SPS	CT	2	3	128.333	21.032	12.143	42.063	442.333	76.120	180.547	108	150
LOGG	CARN	80	1709	TOTL	SPS	CT	0	26	52.346	4.335	0.850	8.671	18.795	50.595	54.098	40	62
LOGG	CARN	80	1709	TOTL	SPS	CT	1	18	99.667	9.049	2.133	18.098	81.882	95.166	104.167	84	120
LOGG	CARN	80	1709	TOTL	SPS	CT	2	7	139.857	14.519	5.488	29.039	210.810	126.412	153.302	121	157
LOGG	CARN	80	1709	TOTL	SPS	CT	3	2	171.500	4.950	3.500	9.899	24.500	127.015	215.985	168	175
LOGG	CARN	80	2207	2	SPS	ALUT	-	94	66.787	11.860	1.223	23.720	140.664	64.365	69.209	44	95
LOGG	CARN	80	2307	TOTL	SPS	ALUT	-	201	68.886	14.178	1.000	28.355	201.002	66.906	70.866	44	112
LOGG	CARN	80	1609	2	SPS	ALUT	-	84	69.810	12.281	1.340	24.563	150.831	67.143	72.476	48	92
LOGG	CARN	80	1709	TOTL	SPS	ALUT	-	191	75.016	14.373	1.040	28.747	206.594	72.956	77.075	48	115
LOGG	CARN	80	2207	2	SPS	ASPR	-	25	86.840	16.540	3.308	33.079	273.557	80.026	93.654	68	130
LOGG	CARN	80	1609	2	SPS	ASPR	-	19	94.526	14.191	3.256	28.381	201.374	87.690	101.363	72	120
LOGG	CARN	80	2409	UPER	S	CT	0	35	46.029	8.604	1.454	17.208	74.029	43.076	48.981	32	66
LOGG	CARN	80	2409	UPER	S	CT	1	28	88.143	11.787	2.228	23.575	138.942	83.576	92.709	71	108
LOGG	CARN	80	2409	UPER	S	CT	2	10	126.800	12.044	3.809	24.089	145.067	118.192	135.408	110	147
LOGG	CARN	80	1509	2100	S	CT	0	21	62.381	5.844	1.275	11.687	34.148	59.716	65.046	49	71
LOGG	CARN	80	1509	2100	S	CT	1	4	105.000	7.257	3.629	14.514	52.667	93.461	116.539	95	112
LOGG	CARN	80	1509	2100	S	CT	2	3	121.000	9.644	5.568	19.287	93.000	97.059	144.941	114	132
LOGG	CARN	80	3107	1600	S	COHO	0	65	49.046	6.772	0.840	13.544	45.857	47.375	50.718	38	65
LOGG	CARN	80	3107	1600	S	COHO	1	2	73.500	4.950	3.500	9.899	24.500	29.015	117.985	70	77

ID	STREAM	YEAR	DATE	LOC	GEAR	SPEC	AGE	N	XBAR	S	SXBAR	2S	S*S	C.I.MIN	C.I.MAX	RANGE MIN	RANGE MAX
LOGG	CARN	80	1709	1600	S	COHO	0	74	51.622	7.250	0.843	14.501	52.567	49.944	53.299	38	71
LOGG	CARN	80	1709	1600	S	COHO	1	2	77.000	4.243	3.000	8.485	18.000	38.870	115.130	74	80
LOGG	CARN	80	1908	USEL	S	COHO	0	58	55.931	7.789	1.023	15.577	60.662	53.886	57.976	40	73
LOGG	CARN	80	1908	USEL	S	CT	0	7	41.000	3.000	1.134	6.000	9.000	38.222	43.778	37	45
LOGG	CARN	80	1908	USEL	S	CT	1	15	85.600	7.753	2.002	15.507	60.114	81.316	89.884	70	103
LOGG	CARN	80	1908	USEL	S	CT	2	2	118.000	1.414	1.000	2.828	2.000	105.290	130.710	117	119
LOGG	CARN	80	1908	USEL	S	ALUT	-	39	64.462	12.857	2.059	25.714	165.308	60.303	68.620	40	104
LOGG	CARN	80	1908	USEL	S	ASPR	-	7	73.429	7.480	2.827	14.960	55.952	66.502	80.355	64	86
LOGG	CARN	80	2008	PACH	SPS	COHO	0	330	52.924	7.216	0.397	14.432	52.070	52.138	53.711	40	72
LOGG	CARN	80	2008	PACH	SPS	COHO	1	17	86.765	8.664	2.101	17.328	75.066	82.310	91.220	74	104
LOGG	CARN	80	2008	PACH	SPS	RBT	0	61	46.262	5.639	0.722	11.278	31.797	44.818	47.706	38	64
LOGG	CARN	80	2008	PACH	SPS	RBT	1	11	107.545	11.784	3.553	23.569	138.873	99.622	115.469	95	127
LOGG	CARN	80	2008	PACH	SPS	RBT	2	1	144.000								
LOGG	CARN	80	2008	PACH	SPS	RBT	4	1	221.000								
LOGG	CARN	80	2008	PACH	SPS	ALUT	-	45	64.844	16.590	2.473	33.180	275.225	59.874	69.815	47	126
LOGG	CARN	80	2008	PACH	SPS	ASPR	-	81	80.198	23.090	2.566	46.179	533.135	75.092	85.303	43	174
LOGG	CARN	80	2108	RITH	S	CT	0	29	54.483	9.398	1.745	18.797	88.330	50.905	58.061	39	70
LOGG	CARN	80	2108	RITH	S	CT	1	9	106.778	12.019	4.006	24.037	144.444	97.524	116.032	89	130
LOGG	CARN	80	2108	RITH	S	CT	2	1	168.000								
LOGG	CARN	80	2108	RITH	S	CT	3	1	200.000								

Appendix table XV. Fish length-weight data and condition factor (K).

Date	Location	Section	Species	n	age	K	a (x10-5)	b
1970								
July 16	Carnation	150m	Coho	51	0	1.469	1.775	2.95
Aug. 1	Carnation	35m	Coho	44	0	1.430	2.668	2.83
Aug. 7	Carnation	II-1	Coho	8	0		0.004	4.45
		II-2	Coho	9	0		1.969	2.94
		III	Coho	6	0		0.693	3.20
		VII	Coho	8	0		1.485	3.00
		VIII	Coho	14	0		1.805	2.94
		Total	Coho	9	1		9.414	2.58
Aug. 19	Carnation	2150m	Coho	14	0	1.435	1.171	3.05
		Total	Coho	127	0	1.42	2.039	2.90
Aug. 20	Carnation	100m	Coho	26	0	1.404	3.206	2.79
Aug. 20	Carnation	500m	Coho	27	0	1.380	0.637	3.20
Aug. 20	Carnation	2000m	Coho	16	0	1.441	1.478	2.99
Sept. 15	Carnation	II	Coho	35	0		3.99	2.74
		II	Coho	9	1		4.31	2.73
		III	Coho	28	0		3.56	2.78
		III	Coho	6	1		1.44	3.00
		III	Coho	28	0		1.40	3.01
		III	Coho	8	1		0.59	3.21
		VIII	Coho	27	0		2.98	2.81
		VIII	Coho	5	1		314.4	1.75
July 16	Carnation	150m	Rainbow	4	0	1.108	0.387	3.30
Aug. 19	Carnation	Total	Rainbow	36	0	1.13	0.24	3.43
Aug. 20	Carnation	500m	Rainbow	22	0	1.063	0.552	3.18
Aug. 20	Carnation	2000m	Rainbow	12	0	1.201	0.376	3.31
Sept. 15	Carnation	II	Rainbow	6	1+		0.452	3.22
		III	Rainbow	5	0		0.189	3.50
		VIII	Rainbow	6	0		9.72	2.49
		VIII	Rainbow	15	1+		2.04	2.89
1971								
Mar. 18	Carnation	950m	Coho	3	1	1.567	3.319	2.80
Mar. 18	Carnation	1150m	Coho	3	0	1.087	0.009	4.31
				4	1	1.406	0.560	3.23
Mar. 19	Carnation	2100m	Coho	10	1	1.491	0.529	3.25
Mar. 31	Carnation	350m	Coho	13	0	1.195	0.352	3.33
				3	1	1.425	99.680	1.97
Mar. 18	Carnation	Total	Rainbow	5	1	1.120	0.800	3.07
April 20	Carnation	150m	Coho	8	1&2	1.558	2.778	2.86
April 20	Carnation	1000m	Coho	16	0	1.130	2.326	2.80
				7	1	1.434	107.600	1.89
April 20	Carnation	1700m	Coho	8	0	1.190	102.000	1.77
				17	1	1.465	0.558	3.23
May 8	Carnation	900m	Coho	44	0	1.102	0.141	3.56

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
May 8	Carnation	1500m	Coho	42	0	1.029	0.304	3.34
June 1	Carnation	600m	Coho	42	0	1.080	0.246	3.40
June 1	Carnation	900m	Coho	57	0	1.063	0.034	3.94
June 1	Carnation	1500m	Coho	55	0	1.095	3.975	2.64
June 10	Carnation	890m	Coho	11	0	1.056	35.260	2.04
June 10	Carnation	900m	Coho	40	0	1.006	0.134	3.55
				2	1	1.441	0.181	3.51
June 10	Carnation	2000m	Coho	10	0	1.080	0.006	4.41
June 11	Carnation	550m	Coho	9	0	1.134	0.000	6.31
June 11	Carnation	900m	Coho	40	0	1.006	0.013	4.18
June 11	Carnation	1500m	Coho	14	0	1.091	0.001	4.91
June 18	Carnation	1270m	Coho	4	0	0.937	0.059	3.76
June 18	Carnation	620m	Coho	35	0	1.055	0.212	3.44
June 18	Carnation	1270m	Coho	50	0	1.010	10.100	2.37
June 18	Carnation	2380m	Coho	30	0	1.121	0.088	3.69
June 30	Carnation	500m	Coho	7	0	1.241	0.031	3.99
June 30	Carnation	2460m	Coho	11	0	1.293	0.160	3.55
June 30	Carnation	2550m	Coho	11	0	1.217	1281.000	1.14
June 30	Carnation	3100m	Coho	13	0	1.237	10.280	2.42
June 10	Carnation	900m	Rainbow	5	1	1.307	7.123	2.60
June 10	Carnation	1500m	Rainbow	2	2	1.266	0.853	3.08
June 30	Carnation	3100m	Rainbow	6	1	1.353	0.148	3.50
June 30	Carnation	2460m	Rainbow	2	2	1.366	296.100	1.84
July 8	Carnation	100m	Coho	14	0	1.134	0.029	3.98
July 12	Carnation	400m	Coho	15	0	1.164	0.339	3.33
				5	1	1.344	0.868	3.10
July 13	Carnation	600m	Coho	48	0	1.226	0.159	3.55
July 13	Carnation	900m	Coho	36	0	1.177	0.087	3.70
July 13	Carnation	1500m	Coho	11	0	1.154	0.008	4.36
July 27	Carnation	900m	Coho	8	0	1.208	0.013	4.20
July 28	Carnation	900m	Coho	26	0	1.167	0.101	3.65
July 13	Carnation	600m	Rainbow	4	0	0.996	0.000	6.25
July 13	Carnation	1500m	Rainbow	30	0	0.952	0.283	3.34
July 28	Carnation	900m	Rainbow	11	0	1.065	0.394	3.27
				3	1	1.264	1.049	3.04
Aug. 3	Carnation	400m	Coho	12	0	1.205	0.013	4.21
				3	1	1.432	3.397	2.79
Aug. 4	Carnation	525m	Coho	32	0	1.279	0.696	3.16
				12	1	1.481	7.677	2.61
Aug. 6	Carnation	630m	Coho	4	0	1.417	16.550	2.37
				3	1	1.436	2.047	2.91
Aug. 6	Carnation	890m	Coho	14	0	1.150	0.005	4.46
Aug. 6	Carnation	1450m	Coho	6	0	1.198	0.004	4.53
				2	1	1.647	1.533	3.01
Aug. 24	Carnation	620m	Coho	29	0	1.229	0.058	3.81
Aug. 24	Carnation	900m	Coho	21	0	1.162	0.254	3.40
Aug. 24	Carnation	1450m	Coho	34	0	1.172	0.100	3.65

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Aug. 3	Carnation	400m	Rainbow	4	0	0.980	73.130	1.76
				2	1	1.224		
Aug. 4	Carnation	525m	Rainbow	35	0	0.975	0.068	3.74
				9	1	1.298	3.528	2.76
Aug. 6	Carnation	630m	Rainbow	2	0	1.097	0.184	3.49
Aug. 6	Carnation	1450m	Rainbow	4	0	1.052	0.006	4.43
Aug. 24	Carnation	620m	Rainbow	14	0	1.012	0.172	3.48
Aug. 24	Carnation	900m	Rainbow	15	0	1.044	0.221	3.43
Aug. 24	Carnation	1450m	Rainbow	32	0	0.960	0.020	4.07
Sept. 15	Carnation	II&III	Coho	7	0	1.361	0.095	3.67
Sept. 15	Carnation	II	Coho	5	1	1.508	77.080	2.07
Sept. 15	Carnation	III	Coho	4	1	1.493	4.846	2.72
Sept. 15	Carnation	IV	Coho	3	0	1.298	0.000	7.05
Sept. 15	Carnation	VI	Coho	6	0	1.234	0.480	3.24
Sept. 15	Carnation	VIII	Coho	7	0	1.366	0.332	3.36
Sept. 15	Carnation	II-IV	Rainbow	19	0	1.122	0.355	3.31
Sept. 15	Carnation	II&IV	Rainbow	2	1	1.491	0.000	5.21
				3	2	1.267	7.559	2.61
Sept. 15	Carnation	VIII	Rainbow	15	0	1.055	0.021	4.06
				5	1	1.292	0.986	3.06
Sept. 15	Carnation	VI	Rainbow	2	2	1.351	0.106	3.53
Sept. 14	Frederick	-	Coho	13	0	1.433	0.334	3.37
				3	1	1.480	34.540	2.25
Sept. 14	Pachena	-	Coho	4	0	1.443	0.775	3.16
				9	0	1.601	1.169	3.07
				3	1	1.585	1.270	3.04
Sept. 14	Pachena	-	Rainbow	12	0	1.327	34.340	2.15
				5	1	1.482	1.122	3.05
Sept. 14	N. Pachena	-	Coho	5	0	1.499	0.329	3.36
Sept. 14	N. Pachena	-	Rainbow	2	1	1.174		
Aug. 24	Ritherdon	-	Cutthroat	2	1	1.195	0.198	3.44
Sept. 9	Ritherdon	-	Cutthroat	15	0	1.210	1.539	2.94
				12	1	1.294	5.879	2.66
Sept. 10	Ritherdon	-	Cutthroat	3	2	1.268	1624.000	1.48
				5	3	1.278	3.694	2.78
Sept. 10	Carnation	VI	Cutthroat	7	1	1.324	1.099	3.03
Oct. 6	Carnation	300m	Coho	35	0	1.297	0.274	3.40
Oct. 6	Carnation	890m	Coho	22	0	1.246	32930.000	0.35
Oct. 6	Carnation	1450m	Coho	35	0	1.299	0.275	3.41
Oct. 6	Carnation	890m	Rainbow	25	0	1.180	0.777	3.11
Oct. 6	Carnation	1450m	Rainbow	24	0	1.180	0.179	3.50
1972								
May 24	Carnation	Total	Coho		0		0.079	3.71
					1		0.84	3.14

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
June 19	Carnation	Total	Coho		0		0.079	3.71
					1		0.84	3.14
Aug.1	Carnation	Total	Coho		0		0.279	3.39
					1		7.47	2.62
Sept. 12	Carnation	Total	Coho		0		0.113	3.62
					1		7.58	2.61
May 25	Carnation	Total	Rainbow		1		3.977	2.76
June 20	Carnation	Total	Rainbow		1		0.88	3.09
Aug. 1	Carnation	Total	Rainbow		0		0.091	3.66
					1		1.67	2.94
					2		0.63	3.14
Sept. 11	Carnation	Total	Rainbow		0		0.165	3.51
					0		1.316	3.51
					1		4.39	3.00
					2		0.363	3.14
Aug. 3	Carnation	Trib 1600	Coho		0		0.279	3.39
					1		7.47	2.62
Sept. 13	Carnation	Trib 1600	Coho		0		0.129	3.62
					1		7.577	2.61
Aug. 3	Ritherdon	-	Cutthroat		0		1.46	2.95
					1		5.88	2.66
					2		2.32	2.87
Aug. 23	Useless	-	Coho		0		0.113	3.62
Aug. 23	Pachena	-	Coho		0		0.846	3.14
			Rainbow		0		31.3	2.15
			Rainbow		1		1.1	3.05
1973								
May 17	Carnation	Fence	Coho	18	1	0.978	2.262	2.81
				21	2	0.963	0.440	3.16
May 23	Carnation	Fence	Coho	29	1	0.980	1.236	2.94
				5	2	0.903	0.322	3.22
June 28	Carnation	III	Aleuticus	16	ALL	1.087	0.921	3.04
Aug. 15	Carnation	50m	Aleuticus	9	0	0.786	0.454	3.16
				45	1	0.899	0.095	3.56
				12	2	1.038	4.820	2.64
Aug. 15	Carnation	50m	Asper	16	0	0.828	0.171	3.48
				42	1	1.013	0.756	3.07
				31	2	1.064	0.672	3.10
				17	3	1.090	0.078	3.56
June 20	Carnation	V1	Coho	10	0	0.955	0.041	3.84
June 20	Carnation	V2	Coho	11	0	0.945	0.108	3.57
June 20	Carnation	V3	Coho	12	0	0.937	0.290	3.31
June 20	Carnation	V4	Coho	12	0	0.918	0.300	3.29
June 20	Carnation	V5	Coho	11	0	1.003	0.049	3.78
June 20	Carnation	V1-5	Coho	9	1	1.091	3.439	2.72

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Aug. 22	Carnation	V1	Coho	14	0	1.054	0.234	3.38
Aug. 22	Carnation	V2	Coho	15	0	1.012	0.223	3.38
Aug. 22	Carnation	V3	Coho	13	0	0.982	0.780	3.05
Aug. 22	Carnation	V4	Coho	16	0	0.981	0.645	3.11
Aug. 22	Carnation	V5	Coho	15	0	1.034	1.576	2.89
Aug. 22	Carnation	V1-5	Coho	15	1	1.113	0.533	3.17
Aug. 22	Carnation	V1,2,5	Rainbow	6	0	0.887	0.521	3.13
Aug. 22	Carnation	V3	Rainbow	8	0	0.894	0.065	3.69
May 18	Carnation	V4	Rainbow	6	0	0.879	0.450	3.17
		III	Coho	16	0	0.807	0.027	3.92
June 28	Carnation	III	Coho	5	1	1.012	0.070	3.66
				12	0	1.107	0.208	3.44
June 27	Carnation	IV	Coho	10	1	1.221	1.414	2.96
				10	0	0.968	0.098	3.61
Aug. 8	Carnation	III	Coho	10	1	1.152	1.751	2.90
				17	0	1.078	0.294	3.33
Sept. 10	Carnation	II	Coho	12	1	1.184	1.630	2.92
Sept. 12	Carnation	III	Coho	9	0	1.126	0.177	3.46
				10	0	1.120	1.552	2.91
Sept. 11	Carnation	IV	Coho	7	1	1.216	0.341	3.29
Sept. 11	Carnation	V	Coho	14	0	1.122	3.326	2.72
Sept. 10	Carnation	VI	Coho	8	0	0.938	0.006	4.25
				9	0	1.124	1.220	2.98
Sept. 10	Carnation	VIII	Coho	8	1	1.143	3.753	2.72
				8	0	0.987	0.932	3.01
Sept. 10	Carnation	II,IV,VI	Coho	5	1	1.123	1.249	2.97
Aug. 8	Carnation	III	Rainbow	9	1	1.186	3.879	2.72
				6	0	1.072	3.990	2.64
Sept. 10	Carnation	II	Rainbow	3	1	1.012	18.330	2.38
Sept. 11	Carnation	V	Rainbow	4	1	0.945	0.121	3.45
Sept. 10	Carnation	VI	Rainbow	8	0	0.817	0.074	3.61
Sept. 10	Carnation	VIII	Rainbow	6	0	0.906	3.419	2.65
				10	0	0.883	2.991	2.67
Sept. 10	Carnation	V,VI	Cutthroat	4	1	0.863	0.000	4.75
Aug. 31	Carnation	IX	Cutthroat	4	2	0.953	0.065	3.53
				12	0	0.841	0.513	3.14
				5	1	0.940	0.356	3.21
				8	2	0.923	1.547	2.89
Sept. 10	Carnation	Trib C	Cutthroat	5	3	0.951	0.144	3.38
				9	1	1.024	52.220	2.11
				9	2	0.993	0.023	3.79
Sept. 11	Carnation	Trib 1600	Coho	10	0	0.992		
				5	1	1.157	7.385	2.48
Sept. 11	Carnation	Trib 1600	Cutthroat	2	2	0.919	0.041	3.77
Aug. 30	Useless	-	Coho	2	0	1.360	0.056	3.55
				3	1	1.257	0.001	4.55

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Aug. 30	Useless	-	Cutthroat	9	0	1.033	0.029	3.91
				12	1	0.999	8.300	2.54
				3	2	0.975	0.706	3.06
Aug. 31	Frederick	-	Coho	14	0	1.073	0.354	3.28
				7	1	1.120	0.225	3.37
Aug. 29	Pachena	-	Coho	11	0	1.074	0.136	3.51
				8	1	1.130	1.763	2.89
Aug. 29	Pachena	-	Rainbow	15	0	0.903	2.282	2.76
				4	1	0.983	0.722	3.06
Aug. 30	Ritherdon	-	Cutthroat	17	0	0.960	1.314	2.92
				15	1	0.982	0.461	3.16
1974				2	2	0.915	4810.000	1.29
April 20	Carnation	Fence	Coho	28	1	0.997	0.204	3.37
				12	2	1.027	0.128	3.46
May 6	Carnation	Fence	Coho	2	1	1.027	0.007	4.18
				31	2	1.037	0.334	3.24
May 20	Carnation	Fence	Coho	32	1	1.008	0.555	3.13
				53	2	1.045	1.281	2.95
June 5	Carnation	Fence	Coho	14	1	1.099	0.022	3.91
				4	2	0.990	0.317	3.25
May 20	Carnation	400m	Coho	14	0	0.844	0.008	4.27
June 19	Carnation	400m	Coho	16	0	0.965	0.047	3.80
July 26	Carnation	400m	Coho	13	0	1.012	0.582	3.14
				3	1	1.145	0.230	3.37
Aug. 21	Carnation	400m	Coho	15	0	0.973	0.138	3.50
				2	1	1.061	0.000	6.43
June 19	Carnation	400m	Rainbow	2	1	0.954	1077.000	1.34
July 26	Carnation	400m	Rainbow	2	1	0.916	0.056	3.60
Aug. 21	Carnation	400m	Rainbow	2	1	1.020		
May 20	Carnation	400m	Aleuticus	7	ALL	1.002	0.131	3.49
June 19	Carnation	400m	Aleuticus	10	ALL	1.060	0.993	3.01
July 26	Carnation	400m	Aleuticus	11	ALL	1.001	0.103	3.51
Aug. 21	Carnation	400m	Aleuticus	9	ALL	0.920	0.445	3.18
July 26	Carnation	400m	Asper	2	ALL	1.237	0.006	4.12
Aug. 21	Carnation	400m	Asper	3	ALL	0.817	0.001	4.50
May 30	Carnation	V1	Coho	13	0	0.846	0.002	4.63
				2	1	1.074	1.069	3.00
May 31	Carnation	V2	Coho	12	0	0.843	0.017	4.05
May 31	Carnation	V3	Coho	16	0	0.830	0.003	4.53
May 31	Carnation	V4	Coho	16	0	0.865	0.018	4.03
May 31	Carnation	V5	Coho	13	0	0.853	0.157	3.45
May 30	Carnation	V1	Rainbow	3	1	0.925	0.301	3.27
May 31	Carnation	V2	Rainbow	3	1	0.960	0.015	3.99
May 31	Carnation	V5	Rainbow	4	1	1.004	2.144	2.81
				2	2	1.005	0.181	3.37
May 31	Carnation	V2	Aleuticus	5	ALL	1.073	0.092	3.55

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
May 31	Carnation	V4	Aleuticus	3	ALL	0.981	0.183	3.38
May 31	Carnation	V5	Aleuticus	8	ALL	0.967	0.827	3.03
May 21	Carnation	II	Coho	6	0	0.867	0.020	4.01
				14	1	1.096	1.994	2.86
May 29	Carnation	VI	Coho	9	0	0.862	0.024	3.95
				5	1	1.076	0.867	3.05
June 19	Carnation	II	Coho	17	0	0.985	0.128	3.53
				5	1	1.129	1.316	2.96
July 23	Carnation	VI	Coho	9	0	1.010	0.182	3.44
				6	1	1.142	12.330	2.44
July 25	Carnation	II	Coho	11	0	1.153	0.347	3.30
				8	1	1.115	0.550	3.16
Aug. 16	Carnation	II	Coho	24	0	1.040	0.781	3.07
				7	1	1.138	1.592	2.92
Sept. 16	Carnation	II	Coho	11	0	1.074	1.262	2.96
				7	1	1.088	1.058	3.00
Sept. 18	Carnation	VI	Coho	11	0	1.052	1.073	2.99
				6	1	1.184	89.630	2.00
Oct. 18	Carnation	IV	Coho	8	0	1.002	0.995	3.00
Oct. 18	Carnation	V	Coho	7	0	1.056	0.749	3.09
				3	1	1.114	31.630	2.24
Oct. 18	Carnation	VIII	Coho	4	0	1.076	0.130	3.53
Oct. 22	Carnation	II	Coho	10	0	1.019	2.056	2.83
May 29	Carnation	VI	Rainbow	2	1	0.882	0.323	3.25
June 19	Carnation	II	Rainbow	2	1	0.892	9.524	2.46
July 23	Carnation	VI	Rainbow	2	0	0.750	0.011	4.19
				2	1	0.954	3.012	2.73
July 25	Carnation	II	Rainbow	3	0	0.821	0.262	3.33
				4	1	0.946	10.720	2.44
				4	2	0.948	0.733	3.05
Aug. 16	Carnation	II	Rainbow	2	0	0.871	0.053	3.75
				2	2	0.925	0.626	3.08
Sept. 16	Carnation	II	Rainbow	2	0	1.049	2.737	2.75
				5	1	1.015	1.070	2.99
Sept. 18	Carnation	VI	Rainbow	7	0	0.924	0.996	2.98
				8	1	0.978	1.913	2.84
July 23	Carnation	II&VI	Cutthroat	2	1&2	0.928	4635.000	1.17
Sept. 16	Carnation	II&VI	Cutthroat	2	1&2	1.022	1.088	2.98
May 29	Carnation	VI	Aleuticus	2	ALL	0.936	0.001	4.63
June 19	Carnation	II	Aleuticus	7	ALL	0.990	0.367	3.23
July 23	Carnation	VI	Aleuticus	6	ALL	1.115	0.012	4.04
July 25	Carnation	II	Aleuticus	12	ALL	1.059	0.132	3.48
Aug. 16	Carnation	II	Aleuticus	7	ALL	1.010	1.008	3.00
Sept. 16	Carnation	II	Aleuticus	10	ALL	1.061	0.194	3.40
Sept. 18	Carnation	VI	Aleuticus	6	ALL	1.024	0.257	3.30
June 19	Carnation	II	Asper	3	ALL	0.933	0.515	3.15
July 25	Carnation	II	Asper	3	ALL	1.084	0.001	4.56

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
June 19	Carnation	IX	Cutthroat	5	1	0.957	0.952	3.00
				6	2	0.998	2.207	2.83
Sept. 20	Carnation	IX	Cutthroat	4	3	0.912	237.600	1.87
				6	0	0.932	0.236	3.37
				5	1	0.956	4.696	2.63
				7	2	0.952	3.751	2.71
June 20	Carnation	Trib C	Cutthroat	2	3	0.934	73.570	2.12
				3	0	1.527		
				5	1	1.091	151.700	1.85
Sept. 18	Carnation	Trib C	Cutthroat	4	2	1.000	1.587	2.90
				2	3	1.014	0.019	3.78
				7	0	0.867	1.247	2.91
				9	1	0.989	1.910	2.85
				2	2	1.008		
June 20	Carnation	Trib 1600	Coho	2	3	0.968	1061.000	1.61
				7	0	1.136	0.687	3.13
Sept. 19	Carnation	Trib 1600	Coho	8	1	1.250	2.045	2.88
				12	0	1.047	0.413	3.23
Sept. 19	Carnation	Trib 1600	Cutthroat	7	1	1.218	4.404	2.70
				3	1	0.906	2.684	2.75
Aug. 27	Useless	-	Coho	2	3	1.038	0.475	3.15
				4	0	1.076	1.118	2.99
Aug. 27	Useless	-	Cutthroat	4	0	1.100	28.390	2.13
				5	1	1.092	12.350	2.44
				2	2	0.963		
				2	3	0.973	0.783	3.04
Aug. 27	Useless	-	Aleuticus	11	ALL	1.169	0.118	3.52
Aug. 28	Pachena	-	Coho	6	0	1.057	1.650	2.89
				3	1	1.102	0.542	3.16
Aug. 28	Pachena	-	Rainbow	4	0	0.999	2.322	2.77
				3	1	0.917	3.786	2.69
Aug. 28	Pachena	-	Aleuticus	5	ALL	0.961	0.322	3.26
Aug. 28	Pachena	-	Asper	8	ALL	1.132	0.262	3.32
Aug. 28	Frederick	-	Coho	8	0	1.084	1.465	2.93
Aug. 28	Frederick	-	Aleuticus	8	ALL	1.001	1.347	2.92
Aug. 28	Frederick	-	Asper	14	ALL	1.054	2.962	2.79
Aug. 29	Ritherdon	-	Cutthroat	7	0	1.038	2.403	2.78
				7	1	0.938	8.556	2.51
				3	2	0.932	1.285	2.93
				3	3	0.973	4950.000	1.32
1975								
April 10	Carnation	Fence	Coho	20	0	0.737	0.158	3.42
				17	1	1.039	0.716	3.08
April 25	Carnation	Fence	Coho	5	2	1.023	0.034	3.77
				5	1	1.024	2.708	2.76
				5	2	1.013	3.367	2.73

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
April 30	Carnation	Fence	Coho	16	1	1.048	0.308	3.28
May 20	Carnation	Fence	Coho	4	2	1.125	3.754	2.73
May 30	Carnation	Fence	Coho	9	1	1.006	0.526	3.15
April 28	Carnation	400m	Coho	11	2	0.996	4.278	2.68
Sept. 25	Carnation	400m	Coho	7	1	0.974	1.984	2.83
April 28	Carnation	400m	Aleuticus	4	2	0.982	3.735	2.71
Sept. 25	Carnation	400m	Aleuticus	16	0	0.829	9.384	2.33
Sept. 25	Carnation	400m	Asper	2	1&2	1.076	3.152	2.75
Jan. 16	Carnation	II	Coho	12	0	0.962	34.240	2.12
Mar. 10	Carnation	II	Coho	2	1	1.033	0.091	3.55
May 21	Carnation	II	Coho	7	ALL	0.958	0.585	3.11
May 21	Carnation	VI	Coho	15	ALL	0.928	2.407	2.77
June 17	Carnation	II	Coho	5	ALL	1.194	0.003	4.23
July 21	Carnation	II	Coho	11	0	1.019	1.084	2.98
July 22	Carnation	VI	Coho	3	1	1.061	22030.000	0.70
Sept. 18	Carnation	II	Coho	12	1	1.106	1.709	2.89
Sept. 17	Carnation	VI	Coho	3	2	0.969	0.085	3.55
Nov. 19	Carnation	II	Coho	6	0	0.942	0.478	3.18
May 21	Carnation	VI	Rainbow	5	1&2	1.063	3.700	2.70
July 21	Carnation	II&VI	Rainbow	7	0	0.818	0.004	4.44
July 22	Carnation	VI	Rainbow	2	1	1.003	2.872	2.73
July 21	Carnation	II&VI	Rainbow	14	0	0.929	0.078	3.65
Sept. 18	Carnation	II	Rainbow	8	0	1.057	0.527	3.17
Sept. 17	Carnation	II&VI	Rainbow	5	1	1.176	1.154	3.00
Sept. 17	Carnation	VI	Rainbow	9	0	1.072	0.917	3.04
July 21	Carnation	II&VI	Cutthroat	7	1	1.133	3.420	2.73
Sept. 17	Carnation	VI	Cutthroat	12	0	1.007	0.426	3.21
Sept. 17	Carnation	II&VI	Cutthroat	8	1	1.138	0.005	4.25
				12	0	1.042	1.137	2.97
				8	1	1.107	0.287	3.30
				11	0	1.232	1.282	2.99
				3	1	1.137		
				2	1	0.988	0.390	3.23
				6	0	0.844	0.795	3.01
				3	1	1.036	1.379	2.93
				3	2	1.002	28.800	2.28
				7	0	0.955	0.621	3.10
				4	1	0.981	0.359	3.22
				4	2	1.000	1094.000	1.51
				10	0	0.953	0.551	3.13
				6	1	0.987	0.633	3.09
				4	2	0.994	63.900	2.13
				3	3	1.026	6.746	2.62
				2	1	0.942	3.321	2.71
				2	2	0.909	1.833	2.85
				3	3	0.984	0.093	3.46

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
June 18	Carnation	IX	Cutthroat	7	1	0.953	0.926	3.01
				7	2	0.990	1.689	2.88
				2	3	0.871	41200.000	0.84
Sept. 20	Carnation	IX	Cutthroat	5	0	0.814	1.959	2.76
				4	1	0.964	8.645	2.49
				6	2	0.916	0.669	3.06
				2	3	0.937	74.890	2.13
Sept. 18	Carnation	Trib C	Cutthroat	8	0	0.959	0.610	3.12
				7	1	0.972	8.426	2.52
				5	2	1.011	20.050	2.37
Sept. 17	Carnation	Trib 1600	Coho	13	0	1.047	0.739	3.08
				5	1	1.100	1.839	2.88
May 21	Carnation	II	Aleuticus	13	ALL	1.020	2.597	2.78
May 21	Carnation	VI	Aleuticus	2	ALL	1.004	0.773	3.06
July 21	Carnation	II	Aleuticus	11	ALL	1.008	8.112	2.52
July 22	Carnation	VI	Aleuticus	4	ALL	1.078	0.258	3.32
Sept. 18	Carnation	II	Aleuticus	22	ALL	0.995	0.555	3.13
Sept. 17	Carnation	VI	Aleuticus	9	ALL	1.102	0.071	3.60
July 21	Carnation	II	Asper	3	ALL	0.976	0.513	3.15
Sept. 18	Carnation	II	Asper	16	ALL	1.088	0.025	3.82
Aug. 25	Useless	-	Coho	7	0	1.020	0.604	3.12
Aug. 25	Useless	-	Cutthroat	3	0	0.939	1.147	2.94
				7	1	0.992	4.666	2.65
				5	2&3	1.009	0.258	3.27
Aug. 25	Useless	-	Aleuticus	9	ALL	1.098	0.490	3.19
Sept. 19	Frederick	-	Coho	19	0	1.071	1.865	2.86
				2	1	1.029	0.002	4.40
Sept. 19	Frederick	-	Rainbow	11	0	0.987	0.356	3.25
Sept. 19	Frederick	-	Aleuticus	17	ALL	0.987	0.929	3.01
Sept. 19	Frederick	-	Asper	20	ALL	1.077	0.539	3.16
Sept. 19	Pachena	-	Coho	14	0	1.054	0.659	3.11
				6	1	1.081	0.545	3.15
Sept. 19	Pachena	-	Rainbow	11	0	0.944	0.674	3.08
				2	1&2	1.185	3.860	2.74
Sept. 19	Pachena	-	Aleuticus	8	ALL	1.108	0.268	3.32
Sept. 19	Pachena	-	Asper	17	ALL	1.070	0.330	3.25
Sept. 20	Ritherdon	-	Cutthroat	13	0	0.981	0.821	3.04
				7	1	0.966	0.406	3.19
				4	2	0.927	0.306	3.22
1976								
April 30	Carnation	Fence	Coho	5	1	0.996	1.479	2.90
				12	2	0.981	1.039	2.98
May 20	Carnation	Fence	Coho	7	1	1.008	0.357	3.24
				7	2	0.995	2.014	2.84
Feb. 2	Carnation	II	Coho	12	0	0.995	7.839	2.50

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
May 20	Carnation	II	Coho	12	0	0.830	0.045	3.78
				11	1&2	1.050	1.657	2.89
May 18	Carnation	VI	Coho	11	0	0.912	0.013	4.13
July 15	Carnation	II	Coho	16	0	1.033	0.032	3.91
				8	1	1.117	29.680	2.24
July 13	Carnation	VI	Coho	14	0	0.963	0.277	3.33
				11	1	1.089	0.806	3.06
Sept. 20	Carnation	II	Coho	14	0	1.062	0.859	3.05
				7	1	1.099	0.658	3.11
Sept. 23	Carnation	VI	Coho	12	0	1.069	2.393	2.79
				7	1	1.112	3.164	2.75
Nov. 9	Carnation	II	Coho	10	0	1.139	0.084	3.63
May 18	Carnation	VI	Rainbow	10	1	0.898	0.128	3.48
July 15	Carnation	II	Rainbow	8	0	0.732	0.000	5.25
				3	1	0.938	14.980	2.35
July 13	Carnation	II&VI	Rainbow	3	2	1.062	232.600	1.85
July 13	Carnation	VI	Rainbow	10	1	0.990	3.485	2.71
Sept. 20	Carnation	II	Rainbow	12	0	0.901	0.093	3.59
Sept. 20	Carnation	VI	Rainbow	11	1	0.970	1.643	2.88
Sept. 20	Carnation	II&VI	Rainbow	4	2	0.958	0.563	3.11
July 13	Carnation	II&VI	Cutthroat	5	1-3	0.906	0.827	3.02
Sept. 20	Carnation	II&VI	Cutthroat	6	1-4	0.923	0.317	3.20
June 22	Carnation	IX	Cutthroat	6	1	0.961	2.378	2.78
				5	2	1.014	0.257	3.29
				3	3	0.973	1.032	2.98
Sept. 24	Carnation	IX	Cutthroat	8	0	0.860	0.312	3.27
				8	1	0.986	0.909	3.01
				8	2&3	0.995	5.667	2.64
June 23	Carnation	Trib C	Cutthroat	8	1	1.066	1.759	2.88
				4	2	1.215	0.022	3.86
Sept. 22	Carnation	Trib C	Cutthroat	8	0	1.022	4.128	2.97
				9	1	0.978	8.452	2.51
				5	2	1.108	0.681	3.10
June 23	Carnation	Trib 1600	Coho	7	0	0.943	0.002	4.71
				5	1	1.162	4.859	2.65
Sept. 22	Carnation	Trib 1600	Coho	12	0	1.044	0.667	3.11
				8	1	1.155	1.133	3.00
Sept. 22	Carnation	Trib 1600	Cutthroat	5	0	0.949	0.356	3.25
				3	1	1.017	0.849	3.04
May 20	Carnation	II	Aleuticus	10	ALL	0.976	0.418	3.20
July 15	Carnation	II	Aleuticus	15	ALL	1.051	0.398	3.23
July 13	Carnation	VI	Aleuticus	6	ALL	1.046	0.129	3.46
Sept. 20	Carnation	II	Aleuticus	18	ALL	1.042	0.621	3.12
Sept. 23	Carnation	VI	Aleuticus	9	ALL	1.104	53.620	2.14
July 15	Carnation	II	Asper	8	ALL	1.077	0.387	3.22
Sept. 20	Carnation	II	Asper	10	ALL	1.130	0.010	4.01
Aug. 25	Useless	-	Coho	8	0	1.025	0.304	3.31

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Aug. 25	Useless	-	Cutthroat	2	1	0.925	2077.000	1.23
				3	2	0.901	883.001	1.50
				2	3	0.980	119.100	2.05
Aug. 25	Useless	-	Aleuticus	15	ALL	1.024	.0.048	3.70
Aug. 24	Frederick	-	Coho	13	0	1.095	0.274	3.34
Aug. 24	Frederick	-	Rainbow	5	0	0.960	12.860	2.34
Aug. 24	Frederick	-	Aleuticus	11	ALL	1.010	0.207	3.39
Aug. 24	Frederick	-	Asper	12	ALL	1.068	1.019	3.01
Aug. 24	Pachena	-	Coho	10	0	1.035	0.584	3.14
				9	1	1.147	0.928	3.05
Aug. 24	Pachena	-	Rainbow	6	0	0.907	0.976	2.98
				2	1	0.912	7.629	2.51
Aug. 24	Pachena	-	Aleuticus	12	ALL	0.968	0.949	3.00
Aug. 24	Pachena	-	Asper	15	ALL	1.087	0.145	3.44
Aug. 26	Ritherdon	-	Cutthroat	10	0	0.965	0.752	3.06
				8	1	0.972	1.511	2.90
				6	2	1.005	0.022	3.80
Dec. 21	Carnation	II	Coho	8	0	1.125	2.831	2.77
				2	1	1.036	25.690	2.28
1977								
April 12	Carnation	Fence	Coho	12	1	0.991	1.205	2.95
				13	2	1.028	1.964	2.85
May 1	Carnation	Fence	Coho	12	1	0.975	2.427	2.79
				15	2	0.958	1.267	2.93
May 19	Carnation	Fence	Coho	13	1	0.967	28.900	2.23
				12	2	0.954	1.431	2.91
Mar. 25	Carnation	II	Coho	11	1	1.139	0.235	3.38
May 19	Carnation	II	Coho	10	0	1.030	0.487	3.19
				6	1	1.090	2.485	2.80
May 17	Carnation	VI	Coho	10	0	0.982	1.165	2.95
				4	1	1.106	4.762	2.64
June 13	Carnation	II	Coho	10	0	1.097	0.667	3.12
				2	1	1.085	0.155	3.45
July 21	Carnation	II	Coho	11	0	1.122	0.845	3.07
				5	1	1.128	1.033	3.02
July 19	Carnation	VI	Coho	14	0	1.223	3.734	2.72
				4	1	1.175	15.380	2.39
Sept. 29	Carnation	II	Coho	14	0	1.086	0.586	3.14
				10	1	1.124	0.812	3.07
Sept. 27	Carnation	VI	Coho	15	0	1.088	2.368	2.81
Sept. 27	Carnation	VI	Coho	6	1	1.113	22.890	2.31
Dec. 1	Carnation	II	Coho	10	0	1.276	16.090	2.41
May 19	Carnation	II	Rainbow	3	1&2	0.940	1.235	2.93
July 19	Carnation	II&VI	Rainbow	7	1,2	1.070	5.001	2.66
Sept. 27	Carnation	VI	Rainbow	10	0	1.013	1.190	2.96

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Sept. 27	Carnation	II&VI	Rainbow	6	1	1.025	1.956	2.85
				11	2	1.013	0.283	3.27
July 19	Carnation	II&VI	Cutthroat	6	1-4	0.915	1.022	2.97
Sept. 27	Carnation	II&VI	Cutthroat	7	2-4	0.880	0.268	3.23
May 19	Carnation	II	Aleuticus	10	ALL	1.061	3.725	2.69
June 13	Carnation	II	Aleuticus	11	ALL	1.015	2.638	2.76
July 21	Carnation	II	Aleuticus	16	ALL	1.091	0.985	3.03
July 19	Carnation	VI	Aleuticus	6	ALL	1.183	159.600	1.92
Sept. 29	Carnation	II	Aleuticus	20	ALL	1.059	1.754	2.89
Sept. 27	Carnation	VI	Aleuticus	10	ALL	1.191	0.737	3.10
July 21	Carnation	II	Asper	7	ALL	1.531	2.067	2.89
Sept. 29	Carnation	II	Asper	13	ALL	1.081	2.212	2.84
June 10	Carnation	IX	Cutthroat	14	1	0.948	0.517	3.14
				10	2	0.957	0.518	3.13
Sept. 28	Carnation	IX	Cutthroat	12	0	0.859	0.165	3.43
				15	1	0.968	1.037	2.98
				5	2	0.967	0.528	3.12
June 8	Carnation	Trib C	Cutthroat	14	1	1.059	1.146	2.98
				4	283	1.116	1.254	2.97
Sept. 27	Carnation	Trib C	Cutthroat	10	0	0.963	6.389	2.50
				12	1	0.958	1.383	2.91
				4	283	0.930	0.580	3.09
Aug. 29	Useless	-	Coho	9	0	1.126	4.552	2.66
Aug. 29	Useless	-	Cutthroat	3	0	0.967	0.864	3.03
				6	1	1.051	17.220	2.35
				4	2	0.962	2.278	2.81
Aug. 29	Useless	-	Aleuticus	18	ALL	1.024	0.444	3.19
Aug. 30	Frederick	-	Coho	16	0	1.096	1.330	2.95
Aug. 30	Frederick	-	Rainbow	7	0	0.986	0.423	3.21
Aug. 30	Frederick	-	Asper	21	ALL	1.031	0.279	3.31
Aug. 30	Pachena	-	Coho	12	0	1.116	0.109	3.56
				8	1	1.140	0.534	3.17
Aug. 30	Pachena	-	Rainbow	7	0	0.976	0.119	3.52
Aug. 30	Pachena	-	Aleuticus	14	ALL	0.977	0.102	3.54
Aug. 30	Pachena	-	Asper	18	ALL	1.046	0.198	3.36
Aug. 31	Rithardon	-	Cutthroat	12	0	0.935	0.379	3.22
				7	1	1.016	0.036	3.73
				7	2	0.949	0.016	3.85
1978								
Mar. 13	Carnation	II	Coho	10	1	1.192	0.278	3.34
April 1	Carnation	Fence	Coho	12	1	0.967	0.051	3.69
April 2	Carnation	Fence	Coho	7	1	1.056	0.224	3.35
				5	2	1.067	0.008	4.04
April 11	Carnation	Fence	Coho	8	1	1.048	0.043	3.73
				5	2	1.016	660.100	1.58

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
April 13	Carnation	Fence	Coho	22	1	1.013	1.582	2.89
				4	2	0.921	0.017	3.88
April 22	Carnation	Fence	Coho	15	1	1.001	0.999	3.00
				9	2	1.001	1.280	2.94
May 12	Carnation	Fence	Coho	16	1	0.997	3.821	2.69
				5	2	0.966	0.138	3.41
May 20	Carnation	Fence	Coho	6	1	0.941	3.429	2.70
				4	2	0.945	44.670	2.16
Feb. 2	Carnation	II	Coho	10	182	1.162	11.830	2.46
June 8	Carnation	II	Coho	22	0	1.068	0.111	3.58
				3	1	1.164	3.904	2.72
June 7	Carnation	VI	Coho	15	0	1.034	0.836	3.05
				8	1	1.153	12.450	2.44
July 25	Carnation	II	Coho	11	0	1.065	0.379	3.25
				3	1	1.143	1.233	2.98
July 27	Carnation	VI	Coho	12	0	1.048	0.359	3.27
				6	1	1.036	0.639	3.11
Oct. 5	Carnation	II	Coho	13	0	1.069	0.990	3.02
				4	1	1.084	1.191	2.98
Sept. 26	Carnation	VI	Coho	14	0	1.022	0.605	3.13
				9	1	1.123	0.786	3.08
June 8	Carnation	II&VI	Rainbow	3	2	1.031	0.057	3.60
June 8	Carnation	VI	Rainbow	7	1	1.023	1.147	2.97
July 25	Carnation	II&VI	Rainbow	6	0	0.986	0.032	3.88
July 27	Carnation	VI	Rainbow	9	1	0.939	0.566	3.11
July 25	Carnation	II&VI	Rainbow	3	2	0.961	0.566	3.10
Sept. 26	Carnation	VI	Rainbow	2	0	0.915	82160.100	0.26
Sept. 26	Carnation	II&VI	Rainbow	6	1	0.950	2.244	2.81
June 8	Carnation	II	Cutthroat	3	283	0.997	8.801	2.54
July 27	Carnation	VI	Cutthroat	3	0	0.977	1.049	2.98
July 25	Carnation	II&VI	Cutthroat	6	1	0.978	0.003	4.26
July 25	Carnation	II	Cutthroat	4	283	0.956	0.887	3.01
Sept. 26	Carnation	VI	Cutthroat	7	0	0.966	0.423	3.20
				7	1	0.941	0.621	3.09
				5	2	0.981	89.160	2.07
June 8	Carnation	II	Aleuticus	12	ALL	1.060	0.496	3.18
June 7	Carnation	VI	Aleuticus	5	ALL	1.133	0.415	3.21
July 25	Carnation	II	Aleuticus	11	ALL	1.021	0.478	3.18
July 27	Carnation	VI	Aleuticus	6	ALL	1.101	0.181	3.40
Oct. 5	Carnation	II	Aleuticus	13	ALL	1.004	0.171	3.42
Sept. 26	Carnation	VI	Aleuticus	14	ALL	1.147	0.428	3.21
June 8	Carnation	II	Asper	8	ALL	0.993	0.583	3.12
July 25	Carnation	II	Asper	7	ALL	1.120	0.029	3.80
Oct. 5	Carnation	II	Asper	4	ALL	1.034	0.330	3.25
June 6	Carnation	IX	Cutthroat	17	1	1.331	4.118	2.72
				19	2	1.309	3.971	2.75

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Sept. 19	Carnation	IX	Cutthroat	14	0	0.964	0.382	3.24
				12	1	0.965	0.177	3.37
				4	2	0.976	34.160	2.25
June 6	Carnation	Trib C	Cutthroat	31	1	1.331	2.379	2.85
				16	2	1.364	1.566	2.96
Oct. 6	Carnation	Trib C	Cutthroat	6	0	0.941	1.832	2.83
				20	1	0.958	0.228	3.31
				4	2	1.051	0.023	3.77
Aug. 30	Useless	-	Coho	13	0	1.069	1.684	2.89
Aug. 30	Useless	-	Cutthroat	4	0	0.891	0.248	3.34
				7	1	0.909	3.336	2.71
				3	2	0.927	4.218	2.68
Aug. 30	Useless	-	Aleuticus	21	ALL	1.009	0.114	3.50
Oct. 6	Frederick	-	Coho	18	0	1.064	0.402	3.22
Oct. 6	Frederick	-	Aleuticus	11	ALL	0.906	0.378	3.21
Oct. 6	Frederick	-	Rainbow	3	0	1.043	1.309	2.94
Sept. 19	Pachena	-	Coho	22	0	1.031	0.675	3.10
				3	1	1.045	0.418	3.19
Sept. 19	Pachena	-	Rainbow	13	0	0.953	0.780	3.05
				2	1	1.074	0.000	5.42
Sept. 19	Pachena	-	Aleuticus	23	ALL	1.017	0.521	3.16
Sept. 19	Pachena	-	Asper	21	ALL	1.120	0.137	3.46
Aug. 30	Ritherdon	-	Cutthroat	9	0	1.000	5.931	2.56
				12	1	0.961	1.381	2.92
				2	283	0.994	0.048	3.59
Dec. 20 1979	Carnation	II	Coho	11	0	1.134	0.001	4.79
Mar. 29	Carnation	Fence	Coho	11	1	0.959	1.512	2.89
April 4	Carnation	Fence	Coho	11	1	0.955	45.540	2.11
April 17	Carnation	Fence	Coho	22	1	1.010	2.584	2.78
April 23	Carnation	Fence	Coho	6	1	0.984	5.202	2.61
				5	2	1.036	0.062	3.61
May 4	Carnation	Fence	Coho	7	1	1.033	1.221	2.86
				4	2	1.001	222.700	1.83
May 16	Carnation	Fence	Coho	12	1	0.963	1.511	2.89
				8	2	0.958	44.290	2.17
May 26	Carnation	Fence	Coho	10	1	0.941	1.106	2.96
April 24	Carnation	400m	Coho	11	0	0.881	0.018	4.05
				8	1&2	1.074	1.931	2.86
April 24	Carnation	400m	Aleuticus	6	ALL	0.974	5.263	2.60
April 24	Carnation	400m	Asper	2	ALL	0.982	20790.000	0.71
June 9	Carnation	400m	Coho	16	0	1.052	0.204	3.41
				4	1	1.145	16.090	2.38
June 9	Carnation	400m	Aleuticus	6	ALL	0.961	0.063	3.64
June 9	Carnation	400m	Asper	6	ALL	1.008	0.015	3.95
July 26	Carnation	400m	Coho	14	0	1.088	0.382	3.25
				5	1	1.088	0.534	3.16

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
July 26	Carnation	400m	Aleuticus	8	ALL	1.043	0.978	3.01
July 26	Carnation	400m	Asper	4	ALL	0.981	0.035	3.75
Sept. 25	Carnation	400m	Coho	11	0	1.068	1.784	2.87
				2	1	1.075	0.000	6.92
Sept. 25	Carnation	400m	Aleuticus	8	ALL	1.043	0.143	3.47
Sept. 25	Carnation	400m	Asper	3	ALL	0.984	1.132	2.97
June 4	Carnation	II	Coho	14	0	0.996	0.507	3.18
				7	1	1.152	0.063	3.67
June 12	Carnation	VI	Coho	14	0	1.047	0.220	3.40
				9	1	1.167	5.245	2.65
July 24	Carnation	II	Coho	13	0	1.054	0.778	3.07
				5	1	1.037	1.086	2.99
July 26	Carnation	VI	Coho	10	0	1.099	0.660	3.12
				4	1	1.093	47.410	2.12
Sept. 20	Carnation	II	Coho	13	0	1.078	1.137	2.98
				7	1	1.118	2.212	2.84
Sept. 18	Carnation	VI	Coho	11	0	1.051	1.080	2.99
				4	1	1.082	0.724	3.09
June 12	Carnation	VI&VIII	Rainbow	9	1	1.032	1.936	2.85
June 4	Carnation	II&VI	Rainbow	5	2	0.975	0.004	4.15
July 24	Carnation	II&VI	Rainbow	2	1	1.003	1.732	2.88
June 4	Carnation	II&VI	Cutthroat	5	1&2	0.995	1.306	2.94
July 24	Carnation	II&VI	Cutthroat	2	1&2	1.086	4.501	2.69
June 4	Carnation	II	Aleuticus	11	ALL	1.068	0.386	3.24
June 12	Carnation	VI	Aleuticus	12	ALL	1.126	0.347	3.26
July 24	Carnation	II	Aleuticus	13	ALL	0.979	0.185	3.39
July 26	Carnation	VI	Aleuticus	5	ALL	1.153	4.151	2.70
Sept. 20	Carnation	II	Aleuticus	13	ALL	1.000	0.139	3.45
Sept. 18	Carnation	VI	Aleuticus	8	ALL	1.065	1.408	2.93
June 4	Carnation	II	Asper	5	ALL	1.057	0.009	4.07
July 24	Carnation	II	Asper	7	ALL	1.044	0.444	3.19
Sept. 20	Carnation	II	Asper	6	ALL	1.034	0.058	3.63
June 14	Carnation	IX	Cutthroat	8	1	1.016	2.138	2.82
				11	2	0.945	0.532	3.12
				4	3	0.917	1145.000	1.53
Oct. 10	Carnation	IX	Cutthroat	10	0	0.904	0.525	3.14
				11	1	0.938	0.829	3.02
				6	2	0.887	5.211	2.63
June 11	Carnation	Trib C	Cutthroat	11	1	1.086	3.742	2.71
				5	2	1.057	0.419	3.19
Sept. 17	Carnation	Trib C	Cutthroat	3	0	1.048	2.486	2.78
				8	1	1.063	2.557	2.80
				4	2	1.069	6.662	2.61
Aug. 16	Useless	-	Coho	15	0	1.091	0.933	3.04
Aug. 16	Useless	-	Cutthroat	7	0	0.938	0.352	3.26
				3	1	1.047	43.470	2.17
Aug. 16	Useless	-	Asper	2	ALL	0.951	0.421	3.18
Aug. 16	Useless	-	Aleuticus	15	ALL	0.982	0.789	3.06

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
Aug. 14	Frederick	-	Coho	12	0	1.141	0.978	3.03
Aug. 14	Frederick	-	Rainbow	6	0	0.921	1.265	2.91
Aug. 14	Frederick	-	Aleuticus	7	ALL	0.943	0.312	3.31
Aug. 14	Frederick	-	Asper	13	ALL	1.103	0.442	3.21
Aug. 15	Pachena	-	Coho	17	0	1.064	0.624	3.13
				8	1	1.133	0.459	3.20
Aug. 15	Pachena	-	Rainbow	10	0	0.995	0.994	3.00
				3	1	1.060	0.000	6.51
Aug. 15	Pachena	-	Asper	14	ALL	1.128	0.052	3.66
Aug. 15	Pachena	-	Aleuticus	11	ALL	1.040	0.416	3.21
Aug. 13	Ritherdon	-	Cutthroat	8	0	0.945	0.464	3.18
				4	1	0.940	13.480	2.43
				6	2	0.959	4.743	2.67
				2	3	0.939	0.886	3.01
1980								
April 3	Carnation	Fence	Chum	28	0	0.637	185.200	1.48
April 3	Carnation	Fence	Coho	36	0	0.749	296.900	1.35
April 22	Carnation	Fence	Coho	12	0	0.889	0.075	3.67
Mar. 28	Carnation	Fence	Coho	17	1	1.003	1.439	2.91
				5	2	1.022	1.730	2.88
April 3	Carnation	Fence	Coho	18	1	0.985	0.627	3.10
April 4	Carnation	Fence	Coho	4	2	1.001	1.651	2.88
April 14	Carnation	Fence	Coho	16	1	1.034	1.671	2.89
				4	2	1.037	3.554	2.73
May 9	Carnation	Fence	Coho	16	1	0.971	0.913	3.01
				10	2	0.964	60.310	2.11
May 15	Carnation	Fence	Coho	18	1	0.973	1.391	2.92
July 22	Carnation	II	Coho	10	0	1.104	1.079	3.00
				6	1	1.102	0.102	3.54
July 23	Carnation	VI	Coho	15	0	1.024	2.410	2.78
				9	1	1.103	97.320	1.97
Sept. 16	Carnation	II	Coho	17	0	1.066	1.006	3.01
				9	1	1.153	0.286	3.32
Sept. 18	Carnation	VI	Coho	28	0	1.042	0.561	3.15
				7	1	1.128	1.151	2.99
July 23	Carnation	VI	Cutthroat	4	0	0.907	0.001	4.98
July 22	Carnation	II&VI	Cutthroat	8	1	0.941	0.005	4.18
Sept. 18	Carnation	VI	Cutthroat	9	0	0.904	1.002	2.97
Sept. 18	Carnation	VI&VIII	Cutthroat	5	1	0.889	8.259	2.52
Sept. 16	Carnation	II&VI	Cutthroat	5	283	1.006	0.258	3.27
Sept. 24	Carnation	IX	Cutthroat	18	0	0.922	0.301	3.29
				14	1	0.991	0.561	3.12
				6	2	0.974	1.130	2.96
Sept. 15	Carnation	Trib C	Cutthroat	10	0	1.036	1.640	2.88
				4	1	1.071	324.100	1.77
				3	2	1.047	0.006	4.07

Appendix table XV (cont'd)

Date	Location	Section	Species	n	age	K	a (x10-5)	b
July 23	Carnation	VI	Rainbow	3	0	0.955	0.000	5.06
July 23	Carnation	VI&VIII	Rainbow	3	1-3	1.060	0.998	3.00
Sept. 18	Carnation	VI	Rainbow	9	0	1.023	0.788	3.06
Sept. 16	Carnation	II&VIII	Rainbow	5	1,2	0.981	3.303	2.75
July 22	Carnation	II	Aleuticus	10	ALL	0.959	0.852	3.03
July 23	Carnation	VI&VIII	Aleuticus	25	ALL	1.112	4.264	2.70
Sept. 16	Carnation	II	Aleuticus	12	ALL	1.046	1.327	2.94
Sept. 18	Carnation	VI	Aleuticus	12	ALL	1.240	0.350	3.28
July 22	Carnation	II	Asper	10	ALL	1.043	0.151	3.43
Sept. 16	Carnation	II	Asper	9	ALL	1.082	1.291	2.96
Aug. 20	Pachena	-	Coho	18	0	1.097	1.240	2.96
				10	1	1.114	1.760	2.89
Aug. 20	Pachena	-	Rainbow	10	0	1.045	7.504	2.48
				5	1	1.004	1.050	2.99
Aug. 20	Pachena	-	Aleuticus	17	ALL	1.033	1.318	2.95
Aug. 20	Pachena	-	Asper	30	ALL	1.090	0.037	3.72
Aug. 19	Useless	-	Coho	14	0	1.107	0.906	3.04
Aug. 19	Useless	-	Cutthroat	4	0	0.942	0.595	3.12
				10	1	0.999	1.632	2.88
				2	2	1.012		
Aug. 19	Useless	-	Aleuticus	9	ALL	1.057	0.450	3.20
Aug. 19	Useless	-	Asper	6	ALL	1.139	0.066	3.65
Aug. 21	Ritherdon	-	Cutthroat	27	0	0.987	0.630	3.11
				8	1	0.985	2.926	2.76
				2	2&3	0.968	3.925	2.73

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